96-04427

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of

DOCKET NO. 950495-WS

Application for rate increase and increase in service availability charges by Southern States Utilities, Inc. for Orange-Osceola Utilities, Inc. in Osceola County, and in Bradford, Brevard, Charlotte, Citrus, Clay, Collier, Duval, Highlands, Lake, Lee, Marion, Martin, Nassau, Orange, Osceola, Pasco, Putnam, Seminole, St. Johns, St. Lucie, Volusia, and Washington Counties.

SIXTH DAY - EVENING SESSION

VOLUME 26

Pages 2890 through 3021

PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN SUSAN F. CLARK COMMISSIONER J. TERRY DEASON COMMISSIONER JULIA L. JOHNSON COMMISSIONER DIANE K. KIESLING COMMISSIONER JOE GARCIA
DATE:	Monday, May 6, 1996
TIME:	Commenced at 9:00 a.m.
PLACE:	Betty Easley Conference Center 4075 Esplanade Way, Room 148 Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR

(Appearances as heretofore noted.)

I N D E X

WITNESSES

EXHIBITS

PROCEEDINGS

(Transcript continues in sequence from Volume 25)

CHAIRMAN CLARK: We are ready to go back on the record. I do expect Commissioners Garcia and Deason to be here just momentarily, so we can, I think, go through some of the preliminaries. First of all, Ms. James and Mr. MacColeman, I need to swear you in. So if you would please stand and raise your right hand. Ms. James, if you would also stand, I will do it both of you at the same time.

PHYLLIS JAMES

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

CHAIRMAN CLARK: You may be seated. I think we will start with you, Ms. James, is that correct?

MS. SUMMERLIN: That's correct.

CHAIRMAN CLARK: All right. Our staff counsel will go through the preliminaries on getting your testimony into the record, Ms. James.

MS. SUMMERLIN: Can you hear me okay, Ms. James?

WITNESS JAMES: Uh-huh.

MS. SUMMERLIN: Thank you very much for being patient with us this afternoon.

DIRECT EXAMINATION

BY MS. SUMMERLIN:

Q Could you please state your name and business address for the record?

A My name is Phyllis James, the business address is 3804 Coconut Palm Drive, Tampa, Florida, 33619.

Q And how are you employed, who are you employed by?

A I'm employed by the Department of Environmental Protection.

Q Have you prefiled direct testimony in this docket consisting of ten pages?

A Yes, I have.

Q Do you have any changes or corrections to your testimony?

A No, not at this time.

MS. SUMMERLIN: Chairman Clark, may we have Ms. James' testimony inserted into the record as though read?

CHAIRMAN CLARK: The prefiled direct testimony of Ms. Phyllis James will be inserted in the record as though read.

MS. SUMMERLIN: Thank you.

DIRECT TESTIMONY OF PHYLLIS JAMES

Q. Please state your name and business address.

A. Phyllis James, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619.

Q. Please state a brief description of your educational background and experience.

A. I have a Bachelor of Science degree in Natural Sciences. I have worked in the public sector for a period of 5 1/2 years. I was an Environmental Health Specialist with Health, Rehabilitative Services prior to FDEP.

Q. By whom are you presently employed?

A. I am employed by the Florida Department of Environmental Protection (FDEP).

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

A. I have been employed with FDEP for three years. I worked in the dredge and fill program for two years, the remaining year was spent working in the domestic waste program.

Q. What are your general responsibilities at the FDEP?

A. I perform compliance inspections at permitted domestic wastewater treatment plants.

Q. Are you familiar with the Southern States Utilities, Inc. wastewater systems located in Southwest District?

A. Yes.

Q. Were these systems inspected by you, or by FDEP staff under your supervision?

A. I am responsible for the inspections of these wastewater systems.

Citrus Springs Wastewater System

Q. Does the utility have current operating or construction permits from the FDEP for Citrus Springs Wastewater System (Citrus Springs)?

A. Yes.

Q. Please state the issuance dates and the expiration dates of the operating or construction permits.

A. The operating permit was issued February 24, 1994; and expires May 24, 1998.

Q. Is the plant in compliance with FDEP issued permits?

A. Yes. The utility is currently drilling a new background monitoring well, since the original well became a dry well.

Q. Are the wastewater collection, treatment and disposal facilities adequate to serve present customers based on permitted capacity?

A. Yes.

Q. Are the treatment and disposal facilities for Citrus Springs located in accordance with Rule 62-600, Florida Administrative Code?

A. Yes.

Q. Has the FDEP required the utility to take any action so as to minimize possible adverse effects resulting from odors, noise, aerosol drift or lighting?

A. No.

Q. Do the pump stations and lift stations meet FDEP requirements with respect to location, reliability and safety?

A. Yes.

Q. Does the utility have certified operators as required by 61E12-41,

Florida Administrative Code?

A. Yes.

Q. Is the overall maintenance of the treatment, collection, and disposal facilities satisfactory?

A. Yes.

Q. Does the facility meet the effluent disposal requirements of Rules 62-600 and 62-610, Florida Administrative Code?

A. Yes.

Q. Are the collection, treatment and disposal facilities in compliance with all the other provisions of Chapter 62, Florida Administrative Code, not previously mentioned?

A. Yes.

Q. Has Citrus Springs wastewater system been the subject of any FDEP enforcement action within the past two years?

A. No.

Apache Shores Wastewater System

Q. Does the utility have current operating or construction permits from the FDEP for Apache Shores Wastewater System (Apache Shores)?

A. Yes.

Q. Please state the issuance dates and the expiration dates of the operating or construction permits.

A. The operating permit was issued June 1, 1992 and expires June 7, 1997.

Q. Is the plant in compliance with FDEP issued permits?

A. Yes.

Q. Are the wastewater collection, treatment and disposal facilities

adequate to serve present customers based on permitted capacity?

A. Yes.

Q. Are the treatment and disposal facilities located in accordance with Rule 62-600, Florida Administrative Code?

A. Yes.

Q. Has the FDEP required the utility to take any action so as to minimize possible adverse effects resulting from odors, noise, aerosol drift or lighting?

A. No.

Q. Do the pump stations and lift stations for meet FDEP requirements with respect to location, reliability and safety?

A. Yes.

Q. Does the utility have certified operators as required by Rule 61E12-41, Florida Administrative Code?

A. Yes.

Q. Is the overall maintenance of the treatment, collection, and disposal facilities satisfactory?

A. Yes.

Q. Does the facility meet the effluent disposal requirements of Rules 62-600 and 62-610, Florida Administrative Code?

A. Yes.

Q. Are the collection, treatment and disposal facilities in compliance with all the other provisions of Chapter 62, Florida Administrative Code, not previously mentioned?

A. Yes.

Q. Has Apache Shores wastewater system been the subject of any FDEP enforcement action within the past two years?

A. Yes. That information is detailed in the Warning Letter and executed consent order contained in Exhibit PJ-1.

Point O'Woods Wastewater System

Q. Does the utility have current operating or construction permits from the FDEP for Point O'Woods Wastewater System (Point O'Woods)?

A. Yes.

Q. Please state the issuance dates and the expiration dates of the operating or construction permits.

A. Operating permit was issued April 28, 1995. Expiration - October 30, 1999. Construction permit - April 11, 1995 issuance, December 31, 1995 expiration.

Q. Is the plant in compliance with FDEP issued permits?

A. Yes. The plant has been operating out of compliance for several years prior to SSU taking responsibility over its operation. SSU has brought the facility into compliance without FDEP taking enforcement measures. There have been a few minor deficiencies on the MORs due to construction activities.

Q. Are the wastewater collection, treatment and disposal facilities adequate to serve present customers based on permitted capacity?

A. Yes.

Q. Are the treatment and disposal facilities located in accordance with Rule 62-600, Florida Administrative Code?

A. Yes.

Q. Has the FDEP required the utility to take any action so as to minimize

possible adverse effects resulting from odors, noise, aerosol drift or lighting?

A. No.

Q. Do the pump stations and lift stations meet FDEP requirements with respect to location, reliability and safety?

A. Yes.

Q. Does the utility have certified operators as required by Rule 61E12-41, Florida Administrative Code?

A. Yes.

Q. Is the overall maintenance of the treatment, collection, and disposal facilities satisfactory?

A. Yes.

Q. Does the facility meet the effluent disposal requirements of Rules 62-600 and 62-610, Florida Administrative Code?

A. Yes.

Q. Are the collection, treatment and disposal facilities in compliance with all the other provisions of Chapter 62, Florida Administrative Code, not previously mentioned?

A. Yes.

Q. Has Point O'Woods wastewater system been the subject of any FDEP enforcement action within the past two years?

A. No.

Spring Gardens Wastewater System

Q. Does the utility have current operating or construction permits from the FDEP for Spring Gardens Wastewater System (Spring Gardens)?

A. Yes.

Q. Please state the issuance dates and the expiration dates of the operating or construction permits.

A. SSU is in the process of obtaining a wastewater permit.

Q. Are the wastewater collection, treatment and disposal facilities adequate to serve present customers based on permitted capacity?

A. Yes. Currently, the service area has a building moratorium.

Q. Are the treatment and disposal facilities located in accordance with Rule 62-600, Florida Administrative Code?

A. Yes.

Q. Has the FDEP required the utility to take any action so as to minimize possible adverse effects resulting from odors, noise, aerosol drift or lighting?

A. No.

Q. Do the pump stations and lift stations meet FDEP requirements with respect to location, reliability and safety?

A. No. One of the lift stations located within a residential area does not meet the 10 year storm event. The electrical panel box does not meet the 25 year storm event.

Q. Does the utility have certified operators as required by Rule 61E12-41, Florida Administrative Code?

A. Yes.

Q. Is the overall maintenance of the treatment, collection, and disposal facilities satisfactory?

A. No. SSU needs to sod or seed the pond berms to offset erosion problems.

Q. Does the facility meet the effluent disposal requirements of Rules 62-600 and 62-610, Florida Administrative Code?

A. Yes.

Q. Are the collection, treatment and disposal facilities in compliance with all the other provisions of Chapter 62, Florida Administrative Code, not previously mentioned?

A. No. SSU needs to remove old sludge from all three of their ponds. I suggest the addition of fresh sand and rototilling bottom of ponds to enhance percolation.

Q. Has Spring Gardens wastewater system been the subject of any FDEP enforcement action within the past two years?

A. Yes. This system has been hydraulically overloaded over several years. SSU, as the new owner, has completed repairs on the infiltration problems with the collection system. In the past, the ponds were always discharging effluent. After the recent repairs, the ponds appear to be functioning fine.

Q. Do you have anything further to add?

A. I would like to see the installation of a secondary blower to ensure 100% viability of the plant and its treatment. I would like records kept at the plant regarding rotation of the disposal ponds. This will ensure a proper rest and load in order to prevent ground water mounding.

Sugar Mill Woods Wastewater System

Q. Does the utility have current operating or construction permits from the FDEP for Sugar Mill Woods Wastewater System (Sugar Mill Woods)?

A. Yes.

Q. Please state the issuance dates and the expiration dates of the

operating or construction permits.

A. Both expire on December 31, 1995. Application for renewal of wastewater permit is in house.

Q. Is the plant in compliance with FDEP issued permits?

A. No. The flow meter and composite sampler were hit by lightning and have been down since August. Repairs were delayed due to construction on the influent structure where flow is measured. The only problem the Department has that it was not notified of this occurrence nor was it reflected that flows were being estimated on monthly operating reports. Therefore all sampling should have been represented as grab samples. Their permit requires 8 hour flow proportionate composite samples be done weekly.

Q. Are the wastewater collection, treatment and disposal facilities adequate to serve present customers based on permitted capacity?

A. Yes.

Q. Are the treatment and disposal facilities located in accordance with Rule 62-600, Florida Administrative Code?

A. Yes.

Q. Has the FDEP required the utility to take any action so as to minimize possible adverse effects resulting from odors, noise, aerosol drift or lighting?

A. No.

Q. Do the pump stations and lift stations meet FDEP requirements with respect to location, reliability and safety?

A. Yes.

Q. Does the utility have certified operators as required by Rule 61E12-41,

Florida Administrative Code?

A. Yes.

Q. Is the overall maintenance of the treatment, collection, and disposal facilities satisfactory?

A. Yes.

Q. Does the facility meet the effluent disposal requirements of Rules 62-600 and 62-610, Florida Administrative Code?

A. Yes.

Q. Are the collection, treatment and disposal facilities in compliance with all the other provisions of Chapter 62, Florida Administrative Code, not previously mentioned?

A. Yes.

Q. Has Sugar Mill Woods wastewater system been the subject of any FDEP enforcement action within the past two years?

A. No.

Q. Do you have anything further to add?

A. No, I do not.

BY MS. SUMMERLIN:

Q Ms. James, did you also file Exhibit Number PJ-1 consisting of 8 pages with your testimony?

A Yes, I did.

Q Thank you.

MS. SUMMERLIN: Chairman Clark, can we have that exhibit identified?

CHAIRMAN CLARK: That will be identified as Exhibit 181.

MS. SUMMERLIN: Thank you. We tender this witness for cross.

(Exhibit Number 181 marked for identification.)

MR. McLEAN: The Citizens have no questions. Thank you.

CHAIRMAN CLARK: Mr. Twomey.

MR. TWOMEY: Yes, ma'am.

CROSS EXAMINATION

BY MR. TWOMEY:

Q Good afternoon, Ms. James.

A Good afternoon.

Q My name is Mike Twomey, I'm representing a number of civic associations and homeowners groups who are customers of SSU, including several, or one in Citrus County, Sugarmill Woods.

I would ask you to look at Page 5 of your

testimony, please. At the top you discuss the fact that SSU's Apache Shores wastewater system has been the subject of a warning letter, and that it had executed a consent order, which is shown in your exhibit, correct?

A That's correct.

Q Now, as shown on Page 7 of 8 of your exhibit, the utility is required to pay the Department $3,500 in civil penalties, right?

A Yes.

Q Along with the costs. Have they taken the corrective actions yet, SSU, to --

A Yes, they have.

Q They have corrected all of these matters that are shown?

A Yes, they have. They are in compliance.

Q Pardon me?

A They are in compliance at this time.

Q Okay. Let me ask you to turn to Page 7 of your testimony, please. In reference to the Spring Gardens system, you indicate on Page 7 that there is currently a building moratorium, is that correct?

A Yes.

Q Is that still in effect?

A Yes, sir, it is.

Q Okay. And that that moratorium is based on the

fact that there is no more permitted capacity remaining in that system, is that correct?

A The past history of this facility -- we're getting an echo, excuse me.

Q If you could speak closer into that microphone or whatever you have you would be a little louder, I think.

A The past history of the facility, it has been, you know, basically overloaded, overloaded the designed capacity of the plant. But SSU has taken measures to eliminate the infiltration going into the plant.

Q Okay. Now, you said they have taken measures, do you have -- when did they start taking those measures?

A I'm not really sure. I know that they -- well, I don't want to get a wrong answer, but I guess around January they did another smoke test and they were able to find two areas in January of infiltration coming into the plant.

Q Okay.

A But they had started previously to January.

Q I see. But there is still currently a building moratorium, is that correct?

A That's correct.

Q Now, do they have any -- does SSU currently have any construction permits open with you to increase capacity there?

A No, sir, they don't.

Q So who puts the building moratorium in place, is that your agency or a county operation?

A The county does.

Q I'm sorry, the county does?

A Uh-huh, yes, sir.

Q Okay. What does SSU have to do in order to get out from under the building moratorium?

A They just have to provide the department empirical data showing that during seasonal highs that they are below design capacity.

Q I see. Let me ask you, when was this plant last inspected, if you know?

A The last inspection on this plant was done in November '95.

Q Okay. On Page 7, you also state at the bottom that the overall maintenance of the facilities are not satisfactory, and you refer to the need to sod or seed the pond berms. Have they corrected that deficiency?

A I spoke to SSU today, and they said they have reseeded the berms and have laid hay to hold the seed in on top of the berms.

Q I see. How about on the next page, Page 8, you indicate that SSU needs to remove old sludge from all three of their ponds, and you suggest some other addition of fresh sand and rototilling pond bottoms to enhance percolation.

Have they corrected those deficiencies yet?

A Not yet.

Q If they are not in compliance with those provisions of Chapter 62 of the Florida Administrative Code, do you find them in violation for that, or what is the status of that?

A Can you rephrase that, again, I'm sorry.

Q Yes. My question essentially is, have you found them in violation for not being in compliance with Chapter 62 for not removing the sludge and so forth?

A We usually give them time to allow the pond to dry up, and what they have done is they have diverted the flow from the pond that has the solids in it, and they are allowing it to dry up so they can get equipment in there to take out the solids.

Q I see. Do you know why they hadn't done this before?

A No, sir, I can't answer that.

Q Let me just say it this way. They have certified operators at this plant, right?

A Yes, sir.

Q Okay. Shouldn't this be the type of thing that SSU should accomplish as the normal practice of a utility of their size?

A Yes, sir, but the solids that were lost in this

plant were due to a previous utility that was handling the plant.

Q You're saying a previous owner?

A That's correct.

Q Okay. So SSU presumably bought it in this condition, is that correct?

A That's correct.

Q Okay. On Page 8, you begin a discussion of the Sugarmill Woods wastewater system, and you say that the plant is not in compliance with FDEP issued permits in part because the flow meter and composite sampler were hit by lightning and have been down since August. And I want to ask you, are those repairs accomplished yet, do you know?

A We asked in a letter to find out when they were repaired, and we never receive a response. We got another letter from SSU stating that they had another lightning strike and it hit the flow meter again.

Q I'm sorry, so are you saying that they said that it was fixed but that it got hit by lightning again?

A Well, we never got a response indicating when it was repaired.

Q I see.

A Then we got another letter stating that the flow meter evidently was hit again by lightning and that it was going to be repaired again.

Q Is that flow meter important from your regulatory perspective of measuring anything of significance?

A Yes, it is.

Q And what does it measure?

A It measures the flow coming to the plant, basically, so that we know that the plant is not receiving beyond the designed capacity of the plant. The flow is not going over the design capacity of the plant.

Q So it's critical in determining whether the design capacity is being exceeded, is it not?

A That's correct.

Q Because there is no other way to ascertain what the in-flows to the system are, right?

A They could possibly with time clocks on the lift station, but it would be very labor intensive.

Q Are you aware that they are doing that?

A We were made aware of that, I guess, February 10th that the flow meter has been repaired.

Q I'm sorry, say that again?

A On February 10th we were notified that the flow meter had been repaired.

Q Oh, you mean that it has been repaired after the second lightning hit?

A Right.

Q Okay. So it's working now, presumably?

A Yes, sir.

Q Are you a correct witness to ask about SSU's construction permits vis-a-vis the wastewater treatment plant at Sugarmill Woods?

A Yes, sir.

Q Okay. Before I do that, let me ask you when did you say your last inspection was at Sugarmill Woods, or did I ask you that?

A It was in November '95.

Q Ms. James, what is the current permitted capacity of the wastewater treatment plant at Sugarmill Woods, is it .4 million gallons per day or .5?

A It is .5.

Q Okay. The utility had a construction permit to increase the capacity of that plant to .7 million gallons per day, is that correct?

A They may have had a construction permit, but they are not asking for an increase at this time.

Q I'm sorry, did you say they are not asking for an increase at this time?

A That's correct.

Q So they are staying at .5?

A That's correct.

Q Do you know how much, if any, of the construction they had indicated pursuant to the .7 expansion that they

actually completed?

A They have installed a new chlorine contact chamber, they have repaired where the effluent comes in from the lift station, they have installed a back-up generator, and that is all at this time.

Q Do you know when they intend to expand that plant?

A No, sir.

Q Okay. Do you think the plant is currently adequate for -- has adequate capacity to treat the flows from Sugarmill Woods?

A Let me have a few minutes. Well, based on the most recent monthly operating report that we have received from Sugarmill Woods, it does exceed the design capacity of the plant in the February monthly operating report, okay. From August to January, the design flow did not exceed the capacity of the plant, but they may be estimated flows. I don't know if they actually came from a flow meter, because we don't have any record of them repairing the flow meter during that time.

Q Okay. If they have apparently exceeded their capacity -- let me ask you first, are you aware of whether there have been any building moratoriums in the geographic area served by the utility's service area?

A No, sir.

Q Okay. If the plant has in the last year

apparently exceeded its capacity at one point, isn't the utility obliged pursuant to your rules for planning new construction to be in a position to start that construction soon?

A Yes. They have to do a capacity analysis report.

Q Right. And have they done that?

A Yes, sir.

Q Okay. And help me understand your rules in this regard. Does the DEP in addition to having them do the capacity analysis, require them to begin new construction, or do you merely put them -- do they merely run up against building moratoriums if they don't have adequate capacity? I'm sorry, how does the DEP deal with a utility that is pushing up close against its capacity?

A Can we hold for a second?

Q Sure.

A I'm going to refer that to Mr. MacColeman, okay?

Q Sure.

A Because he wants to make a statement.

WITNESS MacCOLEMAN: Please repeat the question.

CHAIRMAN CLARK: Let me make a suggestion. Why don't we stay with Ms. James, and then you just simply re-ask that question for Mr. MacColeman, okay? Would that be all right?

MR. TWOMEY: That's fine. And that's all I have

for you, Ms. James. Thank you very much for your time. Now we can traverse back to the gentleman.

CHAIRMAN CLARK: No, no.

MR. TWOMEY: I'm sorry, the company.

CHAIRMAN CLARK: Ms. James, now we will have cross examination by Mr. Armstrong with SSU.

CROSS EXAMINATION

BY MR. ARMSTRONG:

Q Hi, Ms. James.

A How are you doing?

Q First, as I did with the witnesses this morning, it wasn't the company who wanted to make sure that you were testifying today. We appreciate you have a work load, and since we have to work with you constantly, know that we weren't the ones that wanted you to testify, okay? I just have a couple of questions for you. I would like to refer you to Page 5, with regard to Point 'O Woods.

MR. TWOMEY: While she is looking for that document, Madam Chairman, will you consider instructing Mr. Armstrong not to testify about the fact that it is me making these witnesses come here.

MR. ARMSTRONG: I don't mean to suggest that. These witnesses, we have to work with them on a daily basis, and some of them aren't comfortable having to testify, Madam Chair. I don't mean to infer that he is doing something

inappropriate. If that is what he infers from that, I don't mean that at all. Okay, Mike? I don't mean that in the least. These guys are sitting here saying, "I hope they won't get mad," because they are being forced to testify.

CHAIRMAN CLARK: Ms. James and Mr. MacColeman, I hope you understand that the Commission finds your testimony valuable in determining whether or not these facilities are in compliance with state regulations in how they are operating, and we know we have subpoenaed a lot of you to be here and we appreciate your testifying.

WITNESS MacCOLEMAN: Thank you.

WITNESS JAMES: Thank you.

BY MR. ARMSTRONG:

Q Ms. James, are you on Page 5?

A Yes, sir.

Q Thank you. At Line 15 you refer to the fact that the plant had been operating out of compliance for several years prior to SSU taking responsibility over the plant operation. Could you describe what the noncompliance was in that instance?

A No, sir.

Q Okay.

A Not at this time.

Q Okay. But you are familiar with the fact that since Southern States took that facility, they made the

corrective measures to bring it within compliance, correct?

A That's correct.

Q Thank you. If I may refer to your Page 7 of your exhibit, and that is a letter dated May 5th, 1995 --

A Okay. The consent order, the short form consent order.

Q Right. And five lines down in the first paragraph of the body of that letter you refer to the fact that the corrective actions that were required had been completed, right?

A That's correct.

Q Okay. On Page 7 of your testimony, you refer to Spring Gardens. Mr. Twomey asked you several questions about that. Is it true that Southern States recently acquired the Spring Gardens facility?

A Yes, sir.

Q Are you aware of the reductions, the actual reductions in the levels of I&I that have occurred since Southern States has made the improvements you referred to?

A Yes, sir. I have seen the monthly operating reports go down, the flow.

Q Do you have any quantification of just how far they did go down?

A I would say maybe about 50 percent.

Q I'm sorry, I couldn't hear that.

A Roughly about 50 percent.

MR. ARMSTRONG: Thank you, Ms. James. I don't have any further questions. Thank you very much.

CHAIRMAN CLARK: Any questions, Commissioners? Redirect.

MS. SUMMERLIN: Staff has no redirect.

CHAIRMAN CLARK: Thank you, Ms. James. We will now go to Mr. MacColeman, and we need to go through the same procedures we went through with Ms. James.

MS. SUMMERLIN: Thank you. Before we begin, we have passed out to the parties and the Commissioners an exhibit for Mr. MacColeman identified as DGM-1. We would like to have that marked for identification.

CHAIRMAN CLARK: DGM-1 will be marked as Exhibit 182.

MS. SUMMERLIN: Thank you.

(Exhibit Number 182 marked for identification.)

DAVID MacCOLEMAN

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

DIRECT EXAMINATION

BY MS. SUMMERLIN:

Q Mr. MacColeman, please state your name and business address.

A I'm David MacColeman, I work at the Department of Environmental Protection, Southwest District, 3804 Coconut Palm Drive, Tampa, Florida.

Q Could you move the microphone a bit closer to you or speak closer to the microphone.

A How is that?

Q That's a bit better. Thank you. Have you prefiled direct testimony in this docket consisting of three pages?

A I have.

Q Do you have any changes or corrections to your testimony?

A Yes, I do.

Q What would that change or correction be?

A Regarding Palm Terrace Gardens, on April 17th, 1996, I made an inspection of the facility and further evaluated the records. I reconfirmed my earlier statement that the facility has exceeded its quarterly seasonal flows. In addition to that, I also found that there were some anomalies at the facility which put it significantly out of compliance at this time.

MS. SUMMERLIN: Thank you. Chairman Clark, can we have Mr. MacColeman's testimony inserted into the record as though read?

CHAIRMAN CLARK: The prefiled direct testimony of

Mr. David MacColeman will be inserted to the record as though read with the changes he just noted.

MS. SUMMERLIN: Thank you.

DIRECT TESTIMONY OF DAVID G. MACCOLEMAN

Q. Please state your name and business address.

A. David G. MacColeman, 3804 Coconut Palm Drive, Tampa, Florida 33619.

Q. Please state a brief description of your educational background and experience.

A. I hold a B.S. degree in Biology and Chemistry, and an expired wastewater "C" certificate. I have three years experience as an operator of a Class I wastewater treatment plant and four and a half years inspecting wastewater treatment plants. I am currently employed as an Environmental Supervisor.

Q. By whom are you presently employed?

A. I am employed by the Florida Department of Environmental Protection (FDEP).

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

A. Four and a half years, currently as a Environmental Supervisor II in the Domestic wastewater compliance enforcement section.

Q. What are your general responsibilities at the FDEP?

A. I am responsible for Pasco, Hernando, and Citrus Counties wastewater treatment plants to make sure they are in compliance with Florida Statutes and Florida Administrative Code.

Q. Are you familiar with the Southern States Utilities, Inc. wastewater systems located in Southwest District?

A. Only those facilities in Pasco, Hernando, and Citrus Counties.

Q. Were these systems inspected by you, or by FDEP staff under your supervision?

A. Yes. However, Phyllis Jones will file testimony about plants in Citrus

County and Pete Burghardt will file testimony as to selected facilities in Pasco County.

Palm Terrace Wastewater System

Q. Does the utility have current operating or construction permits from the FDEP for Palm Terrace Wastewater System (Palm Terrace)?

A. Yes.

Q. Please state the issuance dates and the expiration dates of the operating or construction permits.

A. Permit No. DO 511234067, was issued September 27, 1993, and expires August 18, 1998.

Q. Are the plants in compliance with FDEP issued permits?

A. Yes, however, on occasion it does exceed its permitted capacity.

Q. Are the wastewater collection, treatment and disposal facilities adequate to serve present customers based on permitted capacity?

A. No. The seasonal flows exceeds plant permitted capacity.

Q. Are the treatment and disposal facilities for Palm Terrace located in accordance with Rule 62-600, Florida Administrative Code?

A. Yes.

Q. Has the FDEP required the utility to take any action so as to minimize possible adverse effects resulting from odors, noise, aerosol drift or lighting?

A. No.

Q. Do the pump stations and lift stations meet FDEP requirements with respect to location, reliability and safety?

A. Yes.

Q. Does the utility have certified operators as required by Rule 61E12-41, Florida Administrative Code?

A. Yes.

Q. Is the overall maintenance of the treatment, collection, and disposal facilities satisfactory?

A. Yes.

Q. Does the facility meet the effluent disposal requirements of Rules 62-600 and 62-610, Florida Administrative Code?

A. A capacity Analysis Report is due and the result of that study may require improvements.

Q. Are the collection, treatment and disposal facilities in compliance with all the other provisions of Chapter 62, Florida Administrative Code, not previously mentioned?

A. Yes.

Q. Has Palm Terrace wastewater system been the subject of any FDEP enforcement action within the past two years?

A. No.

Q. Do you have anything further to add?

A. Yes. The seasonal regulated flows exceed plant capacity although a review of the monthly operating reports do not reveal any excedences of the permit limits. Ground water exhibits radial flows that may or may not be associated with this flow. SSU should submit a Capacity Analysis Report and note plans to expand the plant or convert this facility to a regional public owned treatment works (POTW).

BY MS. SUMMERLIN:

Q Mr. MacColeman, the document dated April 25th, 1996, identified as DGM-1, does that relate to your change to your testimony?

A Yes, it does.

MS. SUMMERLIN: Thank you very much. The witness is tendered for cross.

CHAIRMAN CLARK: Mr. Twomey.

MR. TWOMEY: Yes, ma'am.

CROSS EXAMINATION

BY MR. TWOMEY:

Q Let me ask you, sir, first going back to the -- can you hear me okay?

A Yes.

Q Let me say good afternoon, first.

A Hello.

Q Going back to the Sugarmill Woods system, the flow meter at the Sugarmill Woods water/wastewater treatment plant that went out apparently twice by lightning strikes, is that a device that you are familiar with?

A I'm not familiar with the device itself, but I am familiar with those types of circumstances.

Q I'm sorry?

A I'm not familiar with that particular device, but I am familiar with those types of circumstances.

Q Well, let me ask you this, are you familiar enough with the flow meter to know whether they can be replaced readily if one were to have a spare?

A In most cases they are, but most utilities don't carry that type of equipment. There are so many different types of flow meters, it's difficult to keep that type of inventory available.

Q I see.

A With time they are replaced, though.

Q Okay. Would you expect that one of the advantages of a utility that is statewide in nature and has many systems, that they would be able to keep one spare on hand for ready replacement?

A I wouldn't have an opinion on that.

Q I think the question that was referred to you is in the case of a plant such as the wastewater treatment plant at Sugarmill Woods, which apparently has exceeded its design capacity on at least one occasion in the last 12 months, what action -- do you know that to be true? Do you know about it?

A Phyllis is supervisor, and if she states that's true, it's true.

Q Now, the question then is, given that that is true, what action does your department take, if any, to see that a utility begins construction of new capacity?

A In cases where a utility has exceeded its flow for one month, we would look at the permit and the permit limits. The flow is just one element of the plant's functionality. We are concerned with flow, truly, but if the plant is meeting its monthly operating toward limits, it is of less consequences. If they should happen to fail to meet their limits, then it would be more important, and we would take steps to ask them to expand their facility.

Q How much of a planning -- let me make sure I understood what you said already. You're saying that the plant flows can exceed its design capacity and the utility can still be okay with the DEP if it meets other operating conditions?

A Yes.

Q Sir, to be clear, are you saying that a plant can have flows that exceed its design capacity, but the effluent can still ultimately meet acceptable levels?

A It happens, yes.

Q I don't mean to quibble with you, but does it happen on rare occasions or is it common that plants can exceed their design capacities and still meet your technical requirements for compliance?

A The design capacity of a plant very often is below its limit that allows it to treat the enfluent. The test of the plants compliance is not only flow, but also the quality

of the effluent produced. Small facilities and large facilities have the ability to have flows which periodically occur that exceed their design capacities, but they are still able to produce an effluent which meets the requirements of the monthly operating report.

Q Okay. Let me ask you this, if you're in a position to know, as Ms. James' supervisor. My understanding is that SSU has had -- SSU had the construction permit and then had the -- for expansion to .7 million gallons per day, and then had that extended, I think, until the end of the year. Are you aware of that?

A No, I'm not.

Q Okay. Well, let me ask you this, if you're aware. When should SSU start construction on the necessary physical facilities to expand the capacity of this wastewater treatment plant?

A I don't have access to the records. We would look at the flows for several months, look at seasonality, and the quality of the effluent. If they are consistently above the 50 percent level, then there is a schedule within the rules that require them to begin the planning structure so they don't consistently exceed the flows and affect the effluent quality.

Q Okay, sir. Let me go to the Exhibit 182 that was just handed out a few moments ago, it deals with the Palm

Terrace Gardens wastewater treatment plant. On the second page of that document, in Paragraph 3, that is the numbered Paragraph 3, the report says that the monthly operating reports indicate three months average daily flows exceeding the capacity of the disposal system to such an extent -- or extinct -- I guess it's supposed to be extent, that seasonality is exhibited. Is that a serious problem?

A It is if that continues to be a pattern over a period of time. The question at this point is whether or not it is a matter of flow from the households or if it is a problem with the I&I.

Q From infiltration?

A Yes.

Q Okay. Their recordkeeping is inadequate. Do you follow up on that later to see if they have corrected those?

A Yes. The recordkeeping I found there doesn't allow me to have the confidence that the reporting on the MORs is accurate.

Q Okay. So even without that confidence you had enough information to tell that they had exceeded their capacity, though, is that correct?

A The recordkeeping was regarding the total chlorine residual. The flow was a result of the MORs filed over the last few months.

Q I see. Let me ask you very quickly, when the

capacity of the disposal system is exceeded even on a seasonal basis, does that mean that the effluent that leaves the system exceeds requirements?

A Please restate the question.

Q Yes, sir. When the plant exceeds its daily flows, as you indicated in Paragraph 3, does that mean the effluent that's leaving the plant exceeds acceptable quality standards?

A No.

Q Okay. Sir, if the sludge carries over into the chlorine contact chamber, is that an indication that the flow through the clarifier exceeds its capacity?

A It may well.

Q Okay. Well, would it typically -- I mean, would there be conditions where sludge would go through and not indicate exceeding capacity?

A The capacity, the reference to the subject in the clarifier occurs in many different conditions. One may be hydraulic, the other maybe the failure of the operator to maintain an adequate DO in the aerators, it could be a problem with the lift pumps in the clarifier, the design of the clarifiers, there are a lot of reasons for the sludge to carry through into the contact chamber. If this would occur continually, yes, it would cause a problem with the effluent quality.

MR. TWOMEY: Okay. Thank you very much both for your time. That's all I have.

CHAIRMAN CLARK: Mr. Armstrong.

MR. ARMSTRONG: No questions.

CHAIRMAN CLARK: Redirect.

MS. SUMMERLIN: Mr. McLean advised me he had no questions. He is out of the room right, but he wanted me to let you know. We have no redirect.

CHAIRMAN CLARK: Okay. Ms. James and Mr. MacColeman, I want to thank you very much for taking the time to participate in this proceeding. I also want to say I appreciate your persistence in getting to the right location, and please convey to your supervisors and to the Secretary that your testimony has been very valuable to us and we appreciate your taking the time to participate in this proceeding. Thank you very much.

WITNESS MacCOLEMAN: Thank you.

WITNESS JAMES: Thank you.

CHAIRMAN CLARK: And we will take a break until 6:30. Well, did you have --

MS. SUMMERLIN: Just move in exhibits for those two witnesses.

CHAIRMAN CLARK: Yes, I'm sorry. Go ahead.

MS. SUMMERLIN: Staff would move 181 and 182.

CHAIRMAN CLARK: All right. They will be entered

in the record without objection. And we will take a break until 6:30 to allow everybody to get something to eat, or order out, or whatever. And then we will reconvene with Ms. Dismukes, and then after Ms. Dismukes, we will take up those witnesses who have been subpoenaed by Public Counsel. Thank you.

(Exhibit Number 181 and 182 received into evidence.)

(Dinner recess.)

KIMBERLY H. DISMUKES

resumed the stand on behalf of the Office of Public Counsel, and having previously been duly sworn, testified as follows:

CONTINUED CROSS EXAMINATION

BY MR. JAEGER:

Q Ms. Dismukes, do you remember the last question I asked you?

A Yes.

Q Okay. And you were going to look at it and try to figure out -- are you ready to respond now?

A Yes, I am.

COMMISSIONER GARCIA: Let me hear the question again.

MR. JAEGER: Okay.

BY MR. JAEGER:

Q What I asked, I said if a stand-alone rate

structure or a modified stand-alone rate structure is approved, in your opinion, how should 1996 consumption be determined for each individual plant?

A I'm going to answer this question in the context of the gallons per month from Doctor Whitcomb's study, because I think that was the context in which you asked the question. Essentially, all you would need to do would be to take the difference between the billing units projected by Southern States and those resulting from the Whitcomb study, in other words, the 9,476 gallons, and then prorate those gallons back to the individual systems in accordance with the consumption that has been projected by Southern States in 1996. And that would allow you to account for the difference in consumption patterns between the different systems.

Q Thank you. I've still got a few more. As stated in your direct testimony on Page 51, Lines 9 through 11, if the Commission accepts your alternate recommendation to use 1992 and 1993 billing units to project 1996 billing units, this will increase consumption by $318,515,813, which will increase the test year revenues by $428,398, is that correct?

A The thrust of the question is essentially correct, but you said dollars when you meant to say gallons.

Q Yes, I meant gallons. Would the same methodology

to increase test year variable expenses to account for the increased consumption in related costs, as you did with your primary recommendation be used for your alternate recommendation?

A Yes.

Q And would that number, subject to check, be around $130,000?

A I'll accept that and check it.

Q I think in your testimony you said it would not be prudent nor reasonable to include actual 1995 consumption data into projecting 1996 consumption, is that correct?

A That is my position, yes.

Q And the reason you believe this is true is because in your opinion there was a lot of rainfall in 1995 and rainfall tends to understate consumption?

A Yes. In 1995 there was more rainfall than in 1994. It was one of the wettest years of the five-year period.

Q Since rainfall does not affect the number of bills, would you agree that projecting 1996 bills from actual 1995 bills may be more appropriate and accurate than projecting from 1994?

A Yes.

Q At the beginning of this, I passed out an exhibit consisting of two pages, and it comes from Mr. Terrero's

rebuttal, but also is the first to pages of a permit?

A Yes, I have that.

Q Are you familiar with this current domestic wastewater facility permit issued in October of 1995 by DEP for the Buenaventura Lakes wastewater treatment plant?

A No, I'm not. I did look it over at the break, though.

Q Okay. Could you turn to Page 2 of that document, 2 of 51, and look under the -- right at the top it says reuse?

A Yes.

Q Could you read the first sentence sense of that paragraph?

A Sure. "Surface water discharge and existing .1 MGD AAFD -- AADF permitted capacity nonjurisdictional 3-cell 169 acre treatment wetland reuse system (R001) required to hold emergency discharge from the REB storage during wet weather and reuse water for wetlands enhancement to maintain a productive wildlife habit (sic)."

Q Habitat.

A Habitat, thank you.

Q According to this permit, would you agree that the 169 acre wetlands system is permitted at .1 MGD?

A Could you repeat the question.

Q According to this permit, would you agree that the

169 acre wetland system is permitted at .1 MGD?

A Yes.

Q And is part of the overall effluent disposal capacity of the 1.93 MGD?

A Yes.

Q Also attached to that exhibit are a couple of schedules. I'll be asking you about those schedules now. Please refer to Schedule 32 of your exhibit, that's KHD-1. Is it true that the purchased power, purchased water, and chemical expense information in your exhibit comes from Schedule B-5 of MFR Volume 12, Books 1 through 27, and Volume 3, Books 1 through 6?

A I will accept that subject to check.

Q Okay. And does this expense information come from Column 5 of these MFR volumes?

A Yes.

Q Now, isn't true that Column 5 represents per book expense and Column 7 represents adjusted expense?

A Yes.

Q Shouldn't you use Column 7 instead of Column 5 to make the expense adjustments for excessive unaccounted for water?

A Yes.

Q Okay. I'm done with those schedules, then.

A Okay.

Q The next questions have to do with public relations and the conservation program. Do you agree that public relations advertising is an integral part of an effective conservation program?

A I don't know that I would characterize it as public relations advertising. I do believe that advertising with respect to the conservation program is an integral part of that. It does not necessarily have to be image enhancement, that's what I call PR.

Q So conservation programs cannot be successful without public participation and support?

A Oh, I agree with that.

Q Do you agree that a utility can educate the public on conservation without public relations?

A I think they can do it without necessarily -- they have to have somebody to get the message out. They have to advertise, they have to send out the brochures to the customers. It does not necessarily have to be done through a public relations firm, it can be done through an advertising firm or whatever. And my whole bone of contention with the company's conservation program and many of the costs that they have incurred in the past, is that it's clear that those expenses were incurred for the purpose of enhancing the company's image, and if there was conservation associated with it, it was secondary.

Q So you're saying that a utility can educate the public on conservation without public relations or without blatantly going overboard on public relations?

A Without blatantly going overboard, yes. I guess that's a better way to characterize it.

Q Do you agree that the public relations and image building advertising in SSU's conservation program can be separated?

A I think if you look at the historical information, yes, it can be separated. But in this particular instance, we are looking at a projected test year, and so it is very difficult to determine in the future what is going to be public relations and/or image enhancement versus conservation.

Q So, in lieu of going through each invoice, what have you recommended?

A Essentially with respect to the company's conservation program, I have several different recommendations depending upon what program it is, what expense was incurred. With respect to the advertising costs, for example, I disallowed half of those costs. They increased substantially from prior years, and I had looked at on a historical basis, the information that Southern States had supplied, and I felt that it was more image enhancement than conservation related. I've got numerous

recommendations concerning the other conservation programs. Their six targeted communities, I don't believe that the company has shown that those conservation programs are cost-effective. They have done no cost/benefit analysis, and I am recommending that those expenses be disallowed because the company has not proven them to be reasonable nor adequately addressed them, nor have they considered whether or not rate structure would be a more appropriate alternative to their proposed program. I could go on for days, and I don't think you want to listen to me.

Q I'm sorry I asked the question now. Are you aware that Mr. Broverman's rebuttal testimony was stricken at the beginning of this hearing?

A I'm aware that it has been stricken, yes.

Q I'm going back to rate case expense, again, for just a couple of questions. Since Mr. Broverman's rebuttal testimony regarding SSU's FAS 106 expenses was stricken, would you agree that any costs associated with his testimony should be removed from rate base expense?

A Yes.

Q Thank you. The next questions go to Docket Number 930880-WS, the uniform rate docket. I think you recommended that the Commission disallow 80 percent of the cost SSU budgeted/incurred, I think it came to about $345,671, is that correct?

A Yes.

Q And you are aware that the company would incur certain minimum costs in order to participate in this investigation, such as legal fees and costs related to sending the Commission required notices, is that correct?

A Yes.

Q In your deposition in April, you mentioned that you may change your recommendation regarding the amount of costs which the Commission should allow in recovery related to this docket. I didn't hear that change.

A I didn't make it. I can elaborate if you would like or you can continue.

Q Well, has your position changed from your deposition?

A My position has not changed from the deposition. I recall that one of the items that we addressed in the deposition was the expenses associated with noticing the customers, and that that would be a prudent expense that the company should be allowed to recover. I attempted to look at that further to see if I could determine what portion of the expenses that were incurred in that case was associated with that function, and I simply could not do it. It was not laid out in a fashion that I could isolate precisely the dollars associated with that.

Q Would you agree that the expense associated with

this docket does not relate to a rate case proceeding and should be removed from current rate case expense?

A I missed your second word.

Q Would you agree that expense associated with this docket, the uniform rate investigation docket, does not relate to a rate case proceeding and should be removed from current rate case expense?

A Well, I will agree with you, it is not a rate case expense.

Q Would you also agree if the Commission allows the recovery of prudently incurred costs associated with this docket, these amounts should be considered regulatory Commission expense other, and amortized over five years?

A I can agree with that, yes.

Q And do you believe it would be appropriate to amortize those costs in Docket Number 930880-WS, to only the facilities included in that docket, not the facilities included in this rate case?

A Yes.

MR. JAEGER: Could I have a minute to confer? No further questions, Chairman Clark.

CHAIRMAN CLARK: Commissioners? Redirect.

MR. McLEAN: No redirect, Chairman Clark. I move Exhibits 175, 176, and 177.

CHAIRMAN CLARK: Without objection, Exhibits 175,

176, and 177 will be admitted in the record without objection.

(Exhibit Number 175, 176, and 177 received into evidence.)

MR. HOFFMAN: The company would move Exhibits 178 and 179.

CHAIRMAN CLARK: Exhibits 178 and 179 will be admitted in the reported without objection.

(Exhibit Number 178 and 179 received into evidence.)

MR. JAEGER: Staff, I believe, would just wait until Terrero puts the whole -- I think he is going to put the whole thing in, so we won't clutter up the record with our exhibit. Also, Ms. Clark, I have --

CHAIRMAN CLARK: Well, wait a minute. I already marked it as an exhibit.

MR. JAEGER: Well, it's an exhibit, I just wasn't going to move it in. You can have it numbered and not moved.

CHAIRMAN CLARK: All right. That's fine.

MR. JAEGER: I have three auditors standing by in the wings. Is there any chance we are going to get to them tonight or can they be sent home?

CHAIRMAN CLARK: No, it would be -- I think what we need to do is go to Mr. Sweat and Mr. Armstrong. I

understand Mr. Smith is not here, and I would propose that after we do those we will conclude for the evening.

MR. ARMSTRONG: Madam Chair, I know we spoke briefly about the possibility of Mr. Sweat going before me, but I have some meetings with people tomorrow that I have to attend.

CHAIRMAN CLARK: Well, I should point out that tomorrow is agenda, and we will reconvene this proceeding at 1:00 o'clock or as soon thereafter that we are done with the agenda.

MR. ARMSTRONG: Right.

CHAIRMAN CLARK: It's immaterial to me who goes first.

MR. ARMSTRONG: Okay. Could I go first then, please?

CHAIRMAN CLARK: Mr. Beck.

MR. BECK: Madam Chairman, the questions I would ask Brian Armstrong are dependent on what Tracy Smith's answers are, so I am not prepared to call Mr. Armstrong until Mr. Smith has testified.

CHAIRMAN CLARK: Well, what about Mr. Sweat, can we call him?

CHAIRMAN CLARK: Fine with Mr. Sweat, and I also have the deposition of Stephanie Smith to move in, as well.

MR. ARMSTRONG: We do have four other

stipulations, as well.

CHAIRMAN CLARK: All right. Is that by way of atoning for not having Mr. Smith here?

MR. ARMSTRONG: Sorry. We really didn't expect it to go this quickly today.

CHAIRMAN CLARK: Well, let me be clear. Why don't we go ahead and move Mr. Rothschild's testimony into the record, is that what we need to do, Mr. Beck?

MR. BECK: Yes. We will move his testimony and exhibits into the record.

CHAIRMAN CLARK: Mr. Beck, could you walk me through Mr. Rothschild's testimony and exhibits, I can't seem to find my copy.

MR. BECK: We will probably need a minute to get that together.

CHAIRMAN CLARK: While he is doing that, Mr. Armstrong, are there other witnesses we can identify as witnesses we will be stipulating testimony into the record?

MR. ARMSTRONG: Yes, Madam Chair, Mr. Dilg, his rebuttal; Ms. Lock, her rebuttal; Mr. Johnson's rebuttal; and then Mike Woelffer, I believe, as well. He was a Marco Island witness.

MR. TWOMEY: That's correct.

CHAIRMAN CLARK: All right. Go through that list again. Mr. Dilg --

MR. ARMSTRONG: Robert Dilg, Dale Lock, Frank Johnson, those are all company witnesses, and then Mike Woelffer.

MR. BECK: Madam Chairman, with respect to Dale Lock, I believe we had an agreement to strike Page 34, Line 16 through Page 36 of Line 16 of her testimony, since that was based on Broverman's --

MR. ARMSTRONG: That's right.

CHAIRMAN CLARK: Okay. Make sure we do that when we get to actually moving that testimony into the record. Are we ready to do Mr. Rothschild?

MR. McLEAN: Commissioner Clark, I don't have Mr. Rothschild's testimony with me. I can produce it tomorrow first thing.

CHAIRMAN CLARK: That sounds good.

MR. McLEAN: Thank you, ma'am.

CHAIRMAN CLARK: Mr. McLean, Commissioner Kiesling has hers, can you work from that and we can get that done?

MR. McLEAN: Thank you, Chairman Clark. Mr. Rothschild has 46 pages of direct testimony in the form of question and answers.

CHAIRMAN CLARK: Go ahead.

MR. McLEAN: Appendices A and B, and I believe that's it.

CHAIRMAN CLARK: Okay.

COMMISSIONER KIESLING: I'm sorry, since I don't have mine anymore, is it Appendix A and then what did you say following?

MR. McLEAN: B, Bravo.

COMMISSIONER KIESLING: Oh, okay. And what about JAR-1 through 12, that's on rebuttal? I don't think so.

CHAIRMAN CLARK: No rebuttal.

MR. McLEAN: No, Mr. Rothschild would not be filing rebuttal.

COMMISSIONER KIESLING: Well, then what happened to JAR-1 through 12?

MR. McLEAN: JAR-1 through 12 are exhibits affixed to his testimony. There are 12 exhibits affixed to his testimony in addition to the appendices.

CHAIRMAN CLARK: Okay. The profiled direct testimony of Mr. James A. Rothschild will be inserted in the record as though read, and the Appendix A and B, plus Exhibits JAR-1 through 12 will be identified as Exhibit 183 and admitted in the record without objection.

MR. McLEAN: Thank you, Chairman Clark.

(Exhibit Number 183 marked for identification and received into evidence.)

I. STATEMENT OF QUALIFICATIONS OF JAMES A. ROTHSCHILD

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is James A. Rothschild and my address is 115 Scarlet Oak Drive, Wilton, Connecticut 06897.

Q. WHAT IS YOUR OCCUPATION?

A. I am a financial consultant specializing in utility regulation. I have experience in the regulation of electric, gas, telephone, sewer, and water utilities throughout the United States.

Q. PLEASE SUMMARIZE YOUR UTILITY REGULATORY EXPERIENCE.

A. I am President of Rothschild Financial Consulting and have been a consultant since 1972. From 1979 through January 1985, I was President of Georgetown Consulting Group, Inc. From 1976 to 1979, I was the President of J. Rothschild Associates. Both of these firms specialized in utility regulation. From 1972 through 1976, Touche Ross & Co., a major international accounting firm, employed me as a management consultant. Touche Ross & Co. later merged to form Deloitte Touche. Much of my consulting work done while at Touche Ross was in utility regulation. While associated with the above firms, I worked for various state utility commissions, attorneys general, and public advocates on regulatory matters relating to regulatory and financial issues. These have included rate of return, financial issues, and accounting issues. (See Appendix B.)

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I received an MBA in Banking and Finance from Case Western University (1971) and a BS in Chemical Engineering from the University of Pittsburgh (1967).

II. PURPOSE AND OVERVIEW

Q. WHAT IS THE PURPOSE OF THIS TESTIMONY.

A. The purpose of this testimony is to derive a fair and reasonable cost of equity that should be allowed by the Commission to Southern States Utilities Co. (SSU). This testimony includes an evaluation of the applicability of the current leverage formula result to determine the cost of equity to SSU. Furthermore, the testimony provides a response to the many comments made by Dr. Morin in the testimony he has filed on behalf of SSU.

In formulating the recommendations I have made in this testimony, I have recognized that the cost of capital approved by the Commission should balance the interests of investors and ratepayers. If the allowed cost of capital is excessive, rates will be above the level they need to be for the provision of safe and adequate utility service. If the allowed cost of capital is too low, investors would be denied the profits to which they are entitled, and eventually, the company would not be able to provide the safe and adequate utility service that is critically important to ratepayers.

III. SUMMARY OF FINDINGS AND RECOMMENDATIONS

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS:

A. Based upon the analyses contained in this testimony, I conclude that the cost of equity the Commission should allow to SSU is 10.10%. In arriving at this result, I have followed the Commission's practice of giving equal weight to the cost of equity results indicated for water utilities and for gas distribution utilities. See Sch. JAR-1. If I had based my recommendation solely on the cost of equity indicated for water utilities, my recommendation would have been lower.

The leverage formula result that was approved by the Commission in its August 10, 1995 decision is that the cost of equity to a Florida water utility should be equal to 9.05 percent + 1.1131/Equity Ratio, with a maximum cost of equity of 11.88%, and a cost of equity to the average water utility in Florida of 10.18%[1] By applying this formula to the capital structure requested by SSU, the leverage formula indicated cost of equity is 11.78% based upon a common equity ratio of 40.7%. However, since this formula was developed, capital cost rates have dropped materially. As a result, the 11.78% leverage graph indicated result is considerably higher than the current cost of equity to SSU.

Company Witness Morin has expressed his opinion that the 11.78% cost of equity produced by the leverage formula result produces a cost of equity below that which the company would like to receive. He has recommended that the company be allowed a cost of equity of 12.25%. The evidence I present later in this testimony shows that irrespective of the relative weighting given to the result for gas distribution utilities or to water utility

[1] Page 11 of

companies, the cost of equity to SSU is now materially below 11.78%, not above 11.78%. Therefore, if any variation is to be made to the results of the leverage graph, the cost of equity to allow to SSU should be materially *lowered* rather than *increased* to 12.25% as requested by the company.

Q. HAVE YOU USED ANY METHODS OTHER THAN THE DCF METHOD TO QUANTIFY THE COST OF EQUITY?

A. Yes. As a check to the DCF results, I have also presented a risk premium method. The risk premium result is 9.76% to 10.17% based upon interest rates as of 12/31/95. Additionally, because Dr. Morin presented a CAPM method, and because the Commission expressed a desire to consider the results of a CAPM method, I have also derived a CAPM determined equity cost rate. My CAPM method indicates a cost of equity of 7.67% to 8.12%. However, even though the CAPM method that I have presented does not contain the known serious flaws in Dr. Morin's implementation of CAPM, it still is not as accurate a method as either the DCF method or the risk premium method that I have presented. As I result, my recommendation was formulated based upon the DCF result. The risk premium method was only reviewed as a check.

Q. WHAT ARE THE PROBLEMS WITH DR. MORIN'S CAPM METHOD?

A. There were substantial mathematical and theoretical errors in Dr. Morin's presentation of the CAPM method. For example, to arrive at his CAPM result, he had to violate important principles established by both the U.S. Securities and Exchange Commission (SEC), and improperly use a long-term treasury bond interest rate as a proxy

for a risk-free security, i.e. a security with a zero beta. The only difference in my implementation of the CAPM and Dr. Morin's implementation of the CAPM is that I used the SEC method for quantifying historic actual returns, and used the interest rate on a 30 year U.S. treasury bond in a mathematically correct manner. A more complete discussion of the CAPM method, including the problems with Dr. Morin's implementation of the method, are contained later in this testimony.

Q. OTHER THAN DR. MORIN'S IMPROPER USE OF THE CAPM METHOD, WHAT OTHER PROBLEMS DO YOU HAVE WITH WHAT HE HAS SAID IN HIS TESTIMONY?

A. Following is a summary of the significant problems that I have with the comments made by Dr. Morin in his testimony. A detailed explanation of why these are all valid criticisms of Dr. Morin's testimony will follow later in this testimony:

1. *Hope* Decision. On page 7 of his testimony, Dr. Morin mis-states the findings of the US Supreme Court in its *Hope Natural Gas* decision. Specifically, the *Hope* decision rejects Dr. Morin's desire to allow a return on equity high enough to maintain inflated market to book ratios.

2. Water Company Risks in Florida. Dr. Morin has improperly concluded that there are higher relative risks for water utilities in Florida which cause these companies to need a higher allowed return on equity. The critical point missed by Dr. Morin is that the only risk which impacts the cost of equity is non-diversifiable risk. Factors such as size, large construction programs, regulatory risk are not only shared by water utilities throughout the country, but they are all diversifiable risks anyhow. Furthermore, even if Dr. Morin were correct that size causes an increase in the cost of equity, then his comment on page 10 of his testimony that the source of capital has no bearing on the cost of capital must be wrong. To the extent that size is relevant, it would be the size of the entity raising the capital that should be considered.

3. Direction of Change in Water Company Risk. Dr. Morin speculates on page 15 of his testimony that the risks of water utilities is increasing. Facts show that the opposite is true. If anything, the risk of an investment in water utilities has been declining in recent years.

4. Relative Risk of Gas Companies and Water Companies. Dr. Morin claims that the risk in a water utility is higher than for a gas utility. Facts show that this is not true. In the last several years, the risk of water utilities has been below that of gas distribution utilities. This is confirmed by the DCF results which indicate a higher cost of equity for gas distribution utilities than for water utilities.

5. Exclusive use of DCF method. Dr. Morin claims that it is improper to use only the DCF method to quantify the cost of equity. While a *properly applied* risk premium method can be of some additional value, all too often the risk premium method is mis-applied. The CAPM method, especially as applied by Dr. Morin, is a very inaccurate method for quantifying the cost of equity. Furthermore, as applied by Dr. Morin, the CAPM method contains an unacceptably large upward bias.

II. DETERMINATION OF THE CURRENT COST OF EQUITY FOR WATER AND GAS UTILITIES.

A. Summary

Q. HOW DID YOU DETERMINE THE COST OF EQUITY FOR WATER UTILITIES AND FOR GAS UTILITIES?

A. My primary method for determining the cost of equity was to apply the constant growth, or D/P + g version of the DCF method. In order to properly apply the constant growth version of the method, I recognized that it is *essential* to quantify growth in a manner that is consistent with the constant growth rate expectations necessary for the constant growth version of the DCF model to have any mathematical validity. In addition to using a consistently applied simplified version of the DCF model, I confirmed the result of the constant growth version of the DCF model by presenting a non-constant, or two stage, growth rate to water utilities and also checked the result of the constant growth DCF method by implementing a risk premium method and a CAPM method. Of the three methods, the DCF model should be considered the most accurate, and the risk premium next most accurate. While I was careful to present a version of the CAPM model that has corrected the mathematical errors contained in Dr. Morin's application of the CAPM, even after repairing Dr. Morin's errors, the CAPM, the method is still inferior to the accuracy obtainable by either the DCF model or the risk premium model.

B. Constant Growth DCF Model

Q. HOW DID YOU IMPLEMENT THE CONSTANT GROWTH DCF MODEL?

A. I implemented the constant growth DCF model by quantifying future sustainable growth based on "b x r" + "sv", where "b" is the retention rate that is consistent with the dividend rate used to evaluate the dividend yield, and "r" is equal to the future return on book equity expected by investors. "sv" is added to this "b x r" growth in order to recognize that in addition to growth caused by "b x r", growth is also caused by the sale of new common stock above book value.

Q. DOES THE DCF METHOD BASED UPON THE " b x r" GROWTH METHOD COMPUTE THE COST OF EQUITY WITH ABSOLUTE PRECISION?

A. No. No equity costing approach, DCF or otherwise, is capable of computing the cost of equity with absolute precision. However, a major advantage of the "b x r" approach is that if the method is applied properly, the majority of the inputs required to implement the model, such as stock price, dividend rate, and book value are subject to precise quantification. For most utility companies, the only critical input number that could have a material impact on the DCF computed cost of equity is the value chosen for "r", or the future expected return on equity. If the DCF method is properly applied, the retention rate "b" is directly derived from the value chosen for "r" and the dividend rate used to compute the dividend yield.

Q. ARE THERE RESTRICTIONS ON THE USE OF THE SIMPLIFIED VERSION OF THE DCF METHOD?

A. Yes. The simplified version of the DCF model should only be used when investors expect:

- the same future growth rate estimate in stock price, earnings per share, dividends per share, and book value per share,

and

- that future growth rate is best expressed as a constant. Note that this does not necessarily mean that future growth is expected to be constant. It means that no reason exists to expect future growth to be higher or lower than average in any one specific future year.

Q. CAN THE DCF MODEL BE USED IN A SITUATION WHERE IT IS NOT REASONABLE TO EXPECT THE ABOVE CONDITIONS TO BE MET?

A. Yes. The complex version of the DCF does not require the above simplifying expectations. This is because the complex version separately discounts each expected future cash flow. Recently, FERC has begun to prefer a two-stage DCF model to a single-stage DCF.

I have been presenting a complex form of the DCF model for years. This complex form of the DCF is readily adaptable to the two-stage approach. In order to allow this Commission to be able to also consider a properly applied two-stage DCF, my testimony in this case supplements the results of the single-stage, or constant growth DCF model with a two-stage DCF model.

Q. HOW SHOULD GROWTH FOR USE IN A CONSTANT GROWTH DCF MODEL BE DETERMINED?

A. **The most important characteristic of any approach to determining a growth rate for use in the DCF method is that it incorporate the kind of growth that can**

reasonably be expected to occur for many years into the future. Textbooks generally explain that the appropriate method to quantify the future sustainable growth required for the simplified DCF model is to use the "b x r" method. The advantage of a properly applied "b x r" is that it computes a sustainable growth rate. Therefore, when applying the "b x r" method, the result will be accurate as long as the future return on book equity, "r" that is expected by investors and the retention rate "b" that is both consistent with the value used for "r" and the dividend rate, "D", is used to compute growth. With other methods to estimate future expected growth, extreme care must be taken to be sure that they are in a form that is applicable to the simplified, or constant growth version of the DCF model. In order to be at all useful, these alternative methods usually have to be adjusted so that the indicated growth rates are consistent with the financial realities necessary to develop a growth rate that has any realistic chance of being sustainable.

Q. DO STOCK ANALYSTS USE THE "b x r" METHOD?

A. Yes. In the textbook, *Investments*, by Bodie, Kane and Marcus (Irwin, 1989) at page 478, expected growth rate of dividends is described as follows:

> How do stock analysts derive forecasts of *g*, the expected growth rate of dividends? Usually, they first assume a constant dividend payout ratio (that is, ratio of dividends to earnings), which implies that dividends will grow at the same rate as earnings. Then they try to relate the expected growth rate of earnings to the expected profitability of the firm's *future* investment opportunities.
>
> The exact relationship is
>
> g= b X ROE
>
> where *b* is the proportion of the firm's earnings that is reinvested in the business, called the **plowback ratio** or the **earnings retention ratio,** and

> ROE is the rate of return (return on equity) on new investments. If all of the variables are specified correctly, [the] equation . . . is true by definition, . . .

Q. ARE YOU AWARE OF ANY RECENT REPORT FROM AN INVESTMENT BANKING FIRM THAT SUPPORTS THE TEXTBOOK EXPLANATION OF HOW ANALYSTS DETERMINE "g"?

A. Yes. In a report entitled "U.S. Investment Research. Electric Utilities. Five-year Financial Projections" issued by Morgan Stanley on October 24, 1995, 32 electric utilities are evaluated. In all cases, the "Total Return" is quantified by adding the "Internal Growth" rate to the dividend yield. The internal growth rate is quantified by subtracting the dividend/book ratio from the future expected return on book equity. This is algebraically identical to the "b x r" method in which "r" is equal to the future expected return on book equity and "b" is computed in a manner consistent with the inputs for "r" and for the dividend rate "D" used to compute dividend yield.

Q. HOW DID YOU COMPUTE "g"?

A. As previously stated, I used the "b x roe" method specified in the above textbook quote, although I refer to it in this testimony as the "b x r" method. In the above equation, ROE has the same meaning as "r". I computed the growth rate, "g," by using a future expected return on book equity value, or "r," of 11.25% for the *Value Line* water companies. The specific inputs, and the evaluation of those inputs, is discussed in the next section of this testimony.

My method differs from the method used in the above-referenced Morgan Stanley report only in that I have reflected additional growth for the sale of common

stock in my recommended growth rate. This is consistent with the Morgan Stanley report, because Morgan Stanley specifically noted that its growth rate they have obtained is applicable "... in the absence of new equity issuances..." (P. 4).

The Morgan Stanley report also notes that "(i)f the ROE were to remain constant, this [the growth rate obtained using the equivalent of "b x r"] would be the same as the growth in earnings."

Q. DOES THE MORGAN STANLEY REPORT ADD ANY GROWTH RATES OTHER THAN THE " b x r", OR INTERNAL GROWTH RATE, TO THE DIVIDEND YIELD TO OBTAIN A "TOTAL RETURN" NUMBER?

A. Within Morgan Stanley's write-up on each individual electric company, the only growth rate added to the dividend yield is the "b x r" or "Internal Growth" rate. However, in a summary table on page 9 of the report, Morgan Stanley does also show a total return number using both the "Yield + Int. Growth" and the "Yield + Est. 5-Year Growth" in dividends per share. Page 4 of the report explains that Morgan Stanley is concerned that the "Yield + Int. Growth" rate number might overstate long-term sustainable growth because the reinvestment assumption that earnings can be re-invested to earn the expected return on book equity might be optimistic given slow growth in the industry and increasing competitive pressures.

Q. WHAT COST OF EQUITY DOES THE MORGAN STANLEY REPORT INDICATE FOR ELECTRIC UTILITIES?

A. The average total return for electric utilities based upon the Yield + Internal Growth method is shown by Morgan Stanley to have a median value of 9.1% on page 9 of the report..

Q. WHAT DOES MORGAN STANLEY SHOW AS THE COST OF EQUITY BASED UPON THE YIELD PLUS ESTIMATED FIVE YEAR DIVIDEND GROWTH RATE?

A. The median value for the cost of equity based upon projected dividends per share growth is 8.1%, also on page 9 of the report.

Q. SOME WITNESSES CLAIM THAT THE 'b x r" APPROACH TO THE DCF METHOD IS SOMEHOW CIRCULAR BECAUSE THE FUTURE EARNED RETURN ON BOOK EQUITY THAT YOU USE TO QUANTIFY GROWTH IS USED TO DETERMINE THE COST OF EQUITY, AND THE COST OF EQUITY IS THEN USED TO DETERMINE THE FUTURE RETURN ON EQUITY THAT WILL BE EARNED. IS THIS CIRCULAR?

A. No. Those who erroneously claim that the method is circular confuse the definition of "r" and the definition of "k". While "r" is defined as the future return on **book** equity anticipated by investors, "k" is the cost of equity, or the return investors expect on the **market price** investment. Since the market price is determined based upon what investors are willing to pay for a stock, and the book value is based upon the net stockholders' investment in the company, "r" usually has a different value than "k". In fact, the proper application of the DCF method relates a specific stock market price to a specific expectation of future cash flows that is created by future earned return ("r")

levels. For example, if investors are willing to pay $10 a share for a company when the expectations are that the company will be able to earn 12% on its book equity in the future, if events were to occur which would cause investors to re-evaluate the 12% return expectation, the stock price should be expected to change. If investors' expectations of the future return on book equity change from 12% to 10%, and there is no corresponding change in the cost of equity, the stock price would decline. The cost of equity, however, would not decline simply because an event might occur that would cause investors to lower their estimate for "r". The cost of equity is equal to the sum of both the dividend yield and growth. Investors' estimate of "r" influences the investors estimate for growth. Changes in growth expectations cause investors to change the price they are willing to pay for stock. A change in the stock price can cause a change in the dividend yield that offsets the change in expected growth. In this way, a higher dividend yield would offset by the lower expected growth rate and leave the cost of equity, "k", unchanged.

a. Determination of Future Expected Return on Book Equity, "r"

Q. HOW DID YOU DETERMINE THE VALUE OF "r" THAT YOU USED IN YOUR RETAINED EARNINGS GROWTH COMPUTATIONS FOR THE *VALUE LINE* WATER COMPANIES?

A. I determined the 11.25% investors' expectation of the future value for "r" for the *Value Line* water companies and the 12.00% value for "r" for the gas distribution utilities by evaluating :[2]

[2]Note that the value of "r" is the investors' expected return on book equity, not the cost of equity. The cost of equity, "k" requires consideration of not only the return investors expect on book, but a

- the future returns on book equity expected by *Value Line*,
- the return on book equity consistent with the Zacks' consensus 5-year growth estimate,[3]
- absolute levels of, and trends in, allowed returns on equity to utility companies, and
- historic actual earned returns on equity.

Q. WHY DON'T YOU USE THE GROWTH RATES AS COMPILED BY ZACKS DIRECTLY IN THE SIMPLIFIED DCF FORMULA?

A. The growth rates reported by *Zacks* are five-year growth rates beginning from the most recent historic actual reported earnings per share. It would be improper to merely plug these growth rates into the D/P + g simplified version of the DCF formula because they are not sustainable growth rates. For example, if a company had an atypically good or atypically bad year in 1994, or if the earned returns on equity were, for any other reason, expected to increase (or decrease), the five-year growth rate as reported by *Zacks* would be atypically low (or high). Since the perceived abnormal nature of the earnings might be industry-wide, use of an average growth rate for the entire group would likely

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determination of whether or not the return rate investors expect on book is higher or lower than the return level required to attract capital on reasonable terms. In order to determine the adequacy of the return on book, the market price investors are willing to pay for that return on book must also be considered.

3 Zacks Research is a service that surveys professional securities analysts to determine the consensus earnings per share forecast that is expected for a company. I obtain the Zacks consensus growth rates by accessing the results for the companies of interest to me via the Dow Jones News Retrieval computer database service. Zacks is a similar service to one compiled by I/B/E/S. I use Zacks because it is the one chosen by Dow Jones for use in its database.

not solve the problem. Thus, in order to be able to use these growth rates in the D/P + g version of the DCF formula, it is necessary to compute what return on book equity will achieve the analysts' consensus growth rate. In this way, it is possible to estimate analysts' anticipated future return on book equity.

b. Determination of Retention Rate, "b"

Q. HOW HAVE YOU DETERMINED THE VALUE OF THE FUTURE EXPECTED RETENTION RATE, "b", THAT YOU USED IN YOUR SIMPLIFIED DCF ANALYSIS?

A. I have recognized that the retention rate, "b", is merely the residual of the dividend rate, "D", and the future expected return on book equity, "r." Since, by definition, "b" is the fraction of earnings not paid out as a dividend, the only correct value to use for "b" is the one that is consistent with the quantification of the other variables when implementing the DCF method. The formula to determine "b" is:

$$b = 1 - (D/E), \text{ where}$$

b = retention rate

D = Dividend rate

E = Earnings rate

However, "E" is equal to "r" times the book value per share. Book value per share is a known amount, as is "E", consistent with the future expected value for "r", and the "D" used to compute dividend yield. Therefore, to maximize the accuracy of the DCF

method, quantification of the value of "b" should be done in a manner that recognizes the interdependency between the value of "b" and the values for "r" and "D". I directly computed the value of "b" based upon the values of "D", and "r".

C. Implementation of the Two-Stage or Complex Version of DCF Method

Q. WHY DO YOU ALSO PRESENT THE TWO-STAGE OR COMPLEX VERSION OF THE DCF METHOD?

A. *When constant growth is expected to be the best estimate of future anticipated growth, the two-stage or complex version of the DCF model is essentially the same as the simplified version.* I have presented a two-stage DCF model for several reasons: 1) FERC has recently begun relying upon a two-stage DCF model in recent cost of capital decisions[4]; 2) a two-stage or even more complex than two-stage version of the DCF method is helpful because it provides a framework that will work even in special situations when future payout ratios, earned returns on equity, or market-to-book ratios change; 3) a two-stage or complex version of the DCF model serves as a check to show that the growth rate used in the simplified version is credible. For example, if an analyst forecasts an unrealistically high growth rate, the complex DCF method may show that the growth rate is improper.

Q. HOW WOULD THE COMPLEX VERSION OF THE DCF METHOD SHOW WHETHER A GROWTH RATE IS CREDIBLE?

A. Computing for each year the anticipated dividends, earnings, return on book equity and market-to-book ratios permits a separate study of each of the key causes of future cash flow. If, for example, the complex DCF analysis shows that the chosen growth rate could only occur if market-to-book ratios grow to unrealistic levels, or the payout ratio goes to more than 100%, or the earned return on book equity grows to excessive levels, then the chosen growth rate must be too high. Conversely, if a detailed projection shows that payout ratios, or market-to-book ratios, or the earned return on book equity would have to decline to unrealistic levels, then the growth rate selected must be too low.

Q. HOW DID YOU IMPLEMENT THE TWO-STAGE DCF MODEL?

A. The first stage of the model is based upon *Value Line*'s estimates of dividends per share, earnings per share , and book value per share for 1995 through 1999[5]. *Value Line* does not show a specific earnings and dividend projection for every year from 1995 to 1999. Projections for years skipped by *Value Line* were made by extrapolation from the available data.

I determined future earnings in the second stage of the complex DCF model by multiplying the future book value per share by the future expected earned return on book equity. For the purposes of this case, I used the same future expected return on book equity that I used in the simplified version of the DCF model.[6] Projected book value

[4] Ozark Gas Transmission System, Docket Nos. RP94-105-002 and RP-94-105-003 decision issued July 7, 1994, and Wyoming Interstate Co., Docket No. RP85-39-009, decision issued November 30, 1994.

[5] The estimate for 1999 is shown by *Value Line* as its estimate from 1998-2000.

equals the beginning book value plus the current year's earnings minus the current year's dividends. Book value growth projections also include the effect of sales of new common stock. The projections in the second stage of the DCF model were made up until 40 years into the future. Events longer than 40 years into the future have a minimal present value. [7]

My projections have relied on a constant dividend payout ratio.[8]

I derived the estimated future stock price from the projected book value estimating that the same market-to-book ratio would exist at the time of sale as exists today. The only cash outflow is the price paid for the stock. The complex version of the model uses both the spot stock price as of December 31, 1995, and the average stock price for the year ended December 31, 1995 to be representative of the price paid.

As summarized on Sch. JAR 2, P. 1 and 2, the two-stage complex version of the DCF model indicates a cost of equity between 10.21% and 10.59% for the *Value Line* water companies and between 10.29% and 10.72% for the gas distribution utilities.

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6 For reasons explained in the discussion of the simplified version of the DCF method, this is because I believe that is the best estimate of future earnings. However, if the use of a varying array of future expected returns on book equity were supported by the facts, rather than a constant return, the same mathematical model would still be proper to use in determining the cost of equity.

7 For example, a change in an assumption that the selling market-to-book ratio would be 0.1 lower or higher than as of the time of purchase would introduce a potential inaccuracy in the indicated cost of equity of plus or minus about 25 basis points in a 30 year analysis, but a similar change in the market-to-book ratio expectation would introduce only plus or minus about 15 basis points in a 40 year analysis. If longer than 40 years were used, the result would be even less sensitive to the future market-to-book ratio expectation.

8 As in the case of the future expected earned return on equity assumption, if there were evidence to support the use of varying payout ratios instead of a constant payout ratio, the same model could still be used to accurately quantify the cost of equity. Unlike the simplified DCF model, this model specifically accounts for the fact that a change in the payout ratio has an impact on the book value, and therefore has an impact on the earnings rate achieved in the future.

Q. YOUR EQUITY COST RATE FINDINGS FOR BOTH WATER COMPANIES AND FOR GAS DISTRIBUTION COMPANIES IS HIGHER THAN THE COST OF EQUITY YOU EXPLAINED WAS DETERMINED BY MORGAN STANLEY FOR ELECTRIC UTILITIES. IS THIS BECAUSE THE COST OF EQUITY TO ELECTRIC UTILITIES IS LESS THAN FOR WATER OR GAS DISTRIBUTION UTILITIES?

A. No. I believe that Morgan Stanley's result is too low because Morgan Stanley did not add anything for growth caused by additional sales of common stock above book value. Furthermore, I believe that the DCF based upon retention growth is more reflective of investors' long-term expectations than a DCF using a five-year dividends per share growth rate forecast. Nevertheless, the Morgan Stanley report is valuable because it confirms that my equity cost rate finding is conservatively high. It adds yet additional confirmation to the fact that Dr. Morin's 12.25% equity cost recommendation is based upon seriously flawed approaches to determining the cost of equity.

D. Risk Premium Method

Q. WHY DID YOU CONDUCT A RISK PREMIUM STUDY?

A. A properly applied DCF method has a greater accuracy than is possible to obtain from the best available risk premium method. This is primarily because the risk premium method is limited by the invalid assumption that risk premiums remain constant. Furthermore, the risk premium method requires the quantification of the cost difference between debt and equity. In order to determine this cost difference, the cost of equity has

to first be computed in order to be able to implement the risk premium in the first place. Nevertheless, a properly applied risk premium method is better than an improperly applied risk premium. Therefore, since risk premium methods frequently appear in utility ratemaking proceedings and there are some people who would prefer to consider the results of a risk premium analysis, I have presented an approach to the risk premium method which maximizes the accuracy obtainable from that method.

Q. WHAT COST OF EQUITY IS INDICATED BY THE RISK PREMIUM METHOD?

A. Because there are many more electric utilities covered by *Value Line* than water utilities, I determined a risk premium based upon an analysis of the difference between the cost of debt and the cost of equity of electric companies. As shown on Sch. JAR 8, P. 1 and 2, the risk premium method based heavily on the data for electric utilities indicates a cost of equity of 9.76% to 10.17% on December 31, 1995. There is some variation between the cost of equity for an average electric company and an average water or gas distribution company. The difference between my recommended cost of equity in this case and the cost of equity indicated by the risk premium method could be explained by the industry-risk differential, or could be explained by the lower accuracy associated with a risk premium method than a properly applied DCF method.

Q. PLEASE EXPLAIN THE RISK PREMIUM METHOD.

A. The risk premium method is based upon the concept that the cost of equity is related to, but more expensive than the cost of debt. Since the cost of debt can be readily quantified, if it were possible to accurately quantify the "risk premium" demanded by

investors to invest in the common stock of a particular company instead of debt, it would then be possible to determine the cost of equity merely by adding this premium to the cost of debt. However, in order to compute the difference between the cost of equity and the cost of debt, it is necessary to quantify the cost of equity in the first place. It is also necessary to assume that the risk premium today is the same as the risk premium that existed during the historic period used to quantify the risk premium.

My cost of equity recommendation in this case is based totally on the DCF method. The risk premium method was presented to show that a properly applied risk premium approach does produce a cost of equity result that is consistent with the result obtained from a properly applied DCF method.

Q. IS THE RISK PREMIUM CONSTANT?

A. No. The risk premium over the cost of US treasury debt that is demanded by investors to invest in common stock is, at a minimum, influenced by federal income tax laws. The return on stocks and the return on bonds is taxed differently, and in ways that have varied substantially over the years. When the tax law changes, the risk premium may change.

Q. YOU HAVE MENTIONED THE RISK PREMIUM IN EXCESS OF THE COST OF 30 YEAR TREASURY BONDS. COULD YOU HAVE USED UTILITY DEBT INSTEAD OF 30 YEAR TREASURY BONDS IN YOUR ANALYSIS?

A. Yes. Utility bonds are in a higher risk category than treasury bonds of the same maturity. Therefore, unless the utility bonds being studied are tax free bonds, they will

have a higher interest rate than treasury bonds of the same maturity and same basic terms. Because the interest cost on utility bonds is higher, then the risk premium difference between the cost of equity and the cost of utility bonds is lower than the risk premium difference between the cost of treasury bonds and the cost of equity. If I had added a lower risk premium to a higher interest cost, it should be expected that I would have obtained the same result for the cost of equity that I have obtained by starting with treasury bonds.

Q. WHY WOULD A CHANGE IN THE INCOME TAX LAW CHANGE THE RISK PREMIUM?

A. Typically, the total return received by a bondholder is dominated by the interest income received. Interest income is taxable every year. The return received by a stockholder typically contains a capital appreciation component and a dividend component. The capital appreciation component receives favorable tax treatment in two ways. First, the capital gain is not taxable at all until the stock is sold. Second, the income tax rate charged on capital gains has often been substantially lower than the income tax rate charged on dividend and interest income. Since the 1986 tax law change, the income tax rate on capital gains and on regular income has been similar. Third, dividend income paid to stockholders is partially tax free if the stockholder is another corporation. No such exclusion exists for interest income. This means that every time there is a significant change in the federal income tax law, the "risk premium" demanded by investors to be willing to buy common stock instead of bonds could undergo a corresponding change.

Q. IS A CHANGE IN THE TAX LAW THE ONLY FACTOR THAT CAN INFLUENCE THE RISK PREMIUM?

A. No. Another important factor that could influence the "risk premium" demanded by investors is the perceived interest rate volatility. Investors who buy long-term bonds with a fixed interest rate are exposed to the risk of being locked into that bond's interest rate even if interest rates rise substantially over the life of the bond. Stockholders, especially utility company stockholders, do not share this interest rate risk. The allowed returns on equity are usually reevaluated in a rate case. When the cost of equity goes up, the allowed returns go up. When the cost of equity goes down, the allowed returns go down. Therefore, in times when investors are concerned about interest rate volatility, the "risk premium" required to buy common stock instead of a long-term bond goes down. Conversely, in times when investors are less concerned about interest rate volatility, the "risk premium" goes up.

Q. DID YOU DO ANYTHING TO MINIMIZE INACCURACIES IN THE RISK PREMIUM METHOD CAUSED BY VARIATIONS IN THE RISK PREMIUM OVER TIME?

A. Yes. I quantified the risk premium demanded by investors to invest in common stock by comparing the cost of debt and the cost of equity over the five years ended in 1993. There have been only relatively small changes in the federal income tax rates over that time period. Yet, five years is sufficient time to make it possible to examine a substantial amount of data. I am unaware of any abnormal factors which would have caused

investors' perceptions about future interest rate volatility to have changed over the last five years. To the extent that there are reasons, of which I or any other analyst could be unaware, this renders the "risk premium" approach an ever weaker method.

Q. HOW DID YOU QUANTIFY THE RISK PREMIUM?

A. I compared the cost of equity to the cost of debt for each of the electric utilities covered by *Value Line*. I used the first edition of *Value Line* issued in each calendar year for the five years ended 1993. The cost of equity in each of the last five years was quantified using the DCF method. The DCF method I used to quantify the cost of equity was essentially the same as the DCF approach I use in this case, except that instead of using my own analysis to determine what return on book equity is expected by investors in the future, I simply used *Value Line*'s future return on book equity expectation as a proxy for what investors expected. The cost of equity so computed was separately compared to the interest rate on 30-year US treasury bonds, 5-year US treasury bonds, and 1-year US treasury bonds. Based upon that analysis, three separate risk premiums were quantified.

Q. ARE CHANGES IN INTEREST RATES, INCOME TAX RATES, AND INVESTORS' PERCEPTIONS ABOUT THE VOLATILITY OF FUTURE INTEREST RATES THE ONLY THINGS THAT IMPACT CHANGES IN THE COST OF EQUITY OVER TIME?

A. No. Factors such as capital structure ratios, uncertainties associated with construction projects, and the portion of earnings being paid out as dividends also impact the relative

desirability of investing in the common stock of a water utility as compared to a treasury bond. As these change over time, even if other things remain equal, the risk premium will change.

E. CAPM Method

Q. WHAT COST OF EQUITY IS INDICATED BY THE CAPM METHOD?

A. As shown on Sch. JAR 9, P. 1 and 2, the CAPM method is indicating a cost of equity of 8.12% for water utilities, and 7.67% for gas distribution utilities.

Q. HOW DID YOU IMPLEMENT THE CAPM METHOD?

A. I implemented the CAPM method by using the differential between the actual earned returns on common stocks and the actual earned returns on 30-year treasury bonds from 1926 through 1994. The difference between the actual returns was then first adjusted for the risk difference between the group of common stocks and the risk of an investment in 30 year treasury bonds.

Q. IS THIS METHOD AS ACCURATE AS A PROPERLY APPLIED DCF METHOD?

A. While my approach to CAPM is substantially more accurate than the approach to the CAPM method presented by Dr. Morin, even my approach to the CAPM method is materially less accurate than a properly applied DCF method. I have presented the CAPM method because the Commission has expressed a desire to consider the results from this method. Therefore, I did not want the Commission to be left only with Dr.

Morin's highly flawed approach to the CAPM from which to make its evaluation. However, I believe it is preferable to rely on the DCF method in preference to the CAPM method.

Q. WHY IS THE CAPM METHOD NOT AS ACCURATE AS A PROPERLY APPLIED DCF METHOD?

A. The CAPM method is highly dependent upon whether or not the earned differential between common stocks and long-term bonds is consistent with the spread difference that investors expect for the future. Additionally, the CAPM method shares all of the other problems that cause uncertainty in the "risk premium" method that are discussed in the previous section of this testimony.

Q. YOUR APPROACH TO CAPM SOUNDS THE SAME AS THAT USED BY DR. MORIN, YET YOU HAVE OBTAINED A VERY DIFFERENT ANSWER. PLEASE EXPLAIN WHY.

A. Dr. Morin has made two very serious errors in his implementation of the CAPM method. First, he has incorrectly used an arithmetic averaging technique to measure historic actual returns. Second, he has reached the invalid conclusion that the risk of a 30-year treasury bond is zero. Both of these errors cannot be responsibly refuted, and both serve to materially increase the cost of equity that is indicated by the CAPM model. Another reason my result is lower than his is that he used a 7.60% interest rate for long-term treasury bonds, while I have used a rate of 6.30%. My rate is reflective of current financial conditions, and is because my testimony is able to consider more current

information than was available to Dr. Morin at the time he prepared his testimony. Since he prepared his testimony, there has been a very substantial rally in the bond markets, causing the interest rate on long-term utility bonds to decline materially.

Q. YOU SAID THAT LONG-TERM TREASURY BONDS DO NOT HAVE A ZERO BETA. WHAT IS THE BETA OF LONG-TERM U.S. TREASURY BONDS?

A. The beta of long-term U.S. treasury bonds is about 0.40. This makes long-term treasury bonds in a lower risk category than an equity investment in the common stock of a gas utility, but a beta of 0.40 indicates that there is still a considerable amount of risk in a long-term treasury bond investment.

Q. CAN IT BE REASONABLE TO EXAMINE THE RISK PREMIUM DIFFERENCE BETWEEN LONG-TERM TREASURY BONDS AND COMMON STOCK EVEN THOUGH LONG-TERM TREASURY BONDS DO CONTAIN INTEREST RATE RISK?

A. Yes, but not if it is used in a CAPM model in the way that Dr. Morin has done. One of the elements of Dr. Morin's CAPM computation is that he uses the risk premium between the cost of long-term bonds and common stock as the amount he multiplies by beta. This is wrong. In order to properly quantify the risk differential that is measured by beta, it is essential to use a risk premium factor that is fully reflective of the difference between the two securities being compared.

Q. YOU SAID THAT DR. MORIN IMPROPERLY USED THE ARITHMETIC AVERAGE OF ACTUAL ANNUAL RETURNS EARNED BY COMMON STOCKS FROM 1926-1993 INSTEAD OF THE GEOMETRIC AVERAGE APPROACH. PLEASE EXPLAIN.

A. Arithmetic returns do not properly compensate for year to year volatility and therefore overstate the actual realized returns. The more variable historic growth rates have been, the more his method exaggerates actual growth rates. For example, if a company were to have a stock price of $10.00 in the beginning of the first year of the measurement period and a $5.00 stock price at the end of the first year, an arithmetic average approach would conclude that the return earned by the investor would be a loss of 50% [($5-$10)/($10)]. If, in the second year, the stock price returned to $10.00, then the arithmetic average would compute a gain of 100% in the second year [($10-$5)/($5)]. The arithmetic average approach would naively average the 50% loss in the first year with the 100% gain in the second year to arrive at the conclusion that the total return received by the investor over this two year period would be 25% per year [(-50% +100%)/2 years]. In other words, the arithmetic average approach is so inaccurate that it would conclude the average annual return over this two year period was 25% per year even though the stock price started at $10.00 and ended at $10.00. The geometric average would not make such an error. It would only consider the compound annual return from the beginning $10.00 to the ending $10.00, and correctly determine that the annual average of the total returns was not 25%, but was zero.

In order to protect investors from misleading data, the U.S. Securities and Exchange Commission (SEC) requires mutual funds to report historic returns by using

the geometric average only. The arithmetic average is not permitted. The geometric average, or SEC method, has the compelling advantage of providing a true representation of the performance that would have actually been achieved by an investor who made an investment at the beginning of a period and re-invested dividends at market prices prevailing at the time the dividends were paid.

Q. DO FINANCIAL TEXTBOOKS SUPPORT THE USE OF THE GEOMETRIC AVERAGE FOR COMPUTING HISTORIC ACTUAL RETURNS?

A. Yes. For example, the textbook *Valuation. Measuring and Managing the Value of Companies*, by Copeland, Koller, and Murrin of McKinsey & Co. , John Wiley & Sons, 1994, in a description of how to use the Ibbotson Associates data states the following on pages 261-262:

> We use a geometric average of rates of return because arithmetic averages are biased by the measurement period. An arithmetic average estimates the rates of return by taking a simple average of the single period rates of return. Suppose you buy a share of a nondividend-paying stock for $50. After one year the stock is worth $100. After two years the stock falls to $50 once again. The first period return is 100 percent; the second period return is -50 percent. The arithmetic average return is 25 percent [(100 percent - 50 percent)/2]. The geometric avenge is zero. (The geometric average is the compound rate of return that equates the beginning and ending value.) **We believe that the geometric average represents a better estimate of investors' expected returns over long periods of time.**

(Emphasis added)

Similarly, in another textbook discussion that specifically addresses the use of the Ibbotson data, *Financial Market Rates & Flows*, by James C. Van Horne, Prentice Hall, 1990, states the following on page 80:

> The geometric mean is a geometric average of annual returns, whereas the arithmetic mean is an arithmetic average. For cumulative wealth changes over long sweeps of time, the geometric mean is the appropriate measure.

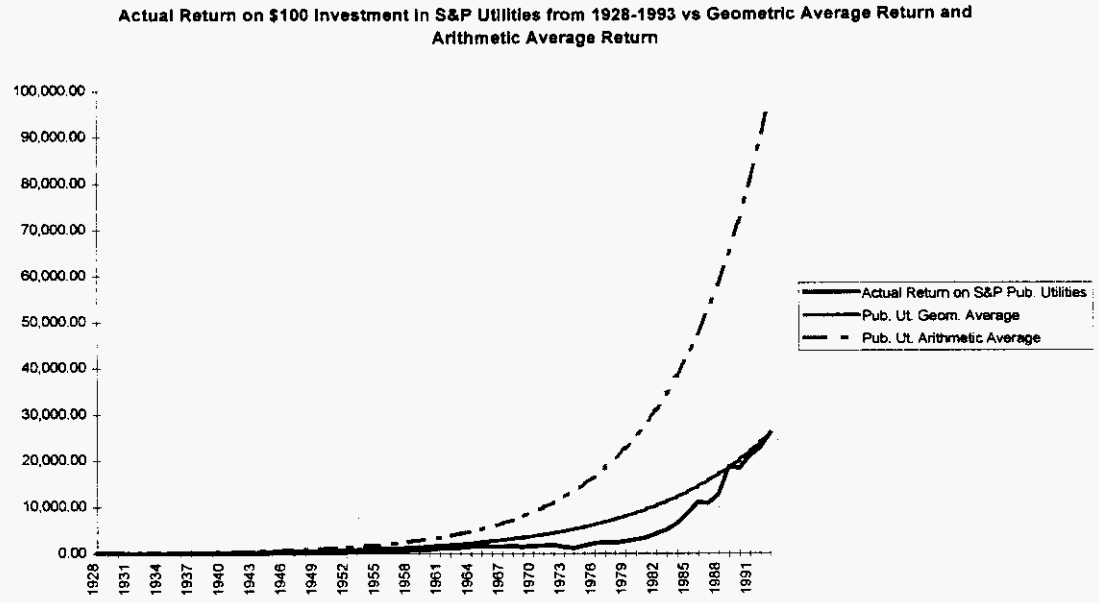
Q. HOW DO INVESTORS VIEW HISTORIC ACTUAL RETURNS?

A. Every time I have seen an article in popular business magazines about what returns stocks have achieved historically, reference is made to a rate that is consistent with the geometric return, not the arithmetic return. A recent example I have seen is in an article entitled "Saving at Mach Speed" on page 79 of the June 12, 1995 issue of *U.S. News and World Report*. This article states that "...10 percent (is) the long-term rate of return of the Standard & Poor's 500."

Q. HAVE YOU COMPARED GRAPHICALLY THE CAPITAL APPRECIATION GROWTH RATE USING DR. MORIN'S METHOD WITH THE CAPITAL APPRECIATION GROWTH RATE THAT IS OBTAINED USING THE SEC METHOD?

A. Yes. In the following graph I show the actual movement of the S&P Utility index from 1928 through 1993. I also show how the index would have behaved on a year-by-year basis using the average growth obtained from the SEC method and using Dr. Morin's historic growth rate methodology. The graph illustrates that Dr. Morin's calculation of historic actual returns deviates at an ever-increasing rate over time from the actual S&P Utility Index, overstating the total return from 1928-1993 by almost 400%. By contrast, the historic actual returns computed using the SEC method is a dramatically more

reasonable track of the growth of the S&P utility over time and thus is a better measure of historic actual return rates realized by investors.



Q. HOW MUCH HIGHER IS THE RISK PREMIUM DIFFERENCE BASED UPON AN ARITHMETIC AVERAGE THAN IT IS BASED UPON A GEOMETRIC AVERAGE?

A. From 1928 to 1993, the arithmetic average method produced an indicated risk premium that was 1.90% higher for public utility stocks vs. public utility bonds than the risk premium indicated by using the SEC, or geometric average method.

For all of the above reasons, to the extent any weight at all is given to the CAPM method, its computation must be based upon a geometric average of historic actual returns in preference to an arithmetic average of historic actual returns.

III. HOPE NATURAL GAS DECISION

Q. ON PAGES 6-9 OF HIS DIRECT TESTIMONY, DR. MORIN DISCUSSES THE U.S. SUPREME COURT DECISION IN THE *HOPE NATURAL GAS* CASE. IS HIS EQUITY COST RECOMMENDATION CONSISTENT WITH THE REQUIREMENTS OF THE HOPE CASE?

A. No. His 12.25% equity cost recommendation is substantially higher than the return required by the implementation of the principles in the *Hope Natural Gas* case. Specifically, his recommendation is inconsistent with the following important quote from the decision:

> The fixing of prices, like other applications of the police power, may reduce the value of the property which is being regulated. But the fact that the value of the property is reduced does not mean that the regulation is invalid... It does, however, indicate that "fair value" is the end product of the process of rate-making not the starting point as the Circuit Court of Appeals held. The heart of the matter is that rates cannot be made to depend upon "fair value" when the value of the going enterprise depends on earnings under whatever rates may be anticipated.

The U. S. Supreme court explains in a footnote to the above paragraph that "... the word 'value' is to be gathered 'from the purpose for which a valuation is being made. Thus the question in a valuation for rate making is how much a utility will be allowed to earn." Therefore, when Dr. Morin says on pages 14 to 15 of his testimony that he concerned about the "... market-to-book (M/B) ratios..." of the water industry and "... falling realized returns on equity...", he has ignored the above-quoted principles. The fact is that the market-to-book ratio of the water utility industry was, on average, above 1.4 as

of December 31, 1995. When the market-to-book ratio is this high, it is consistent for realized returns on equity to be allowed to drift down.

Dr. Morin again ignored the above-quoted principles from the *Hope* decision when he arrived at his erroneous conclusion on page 28 of his testimony that there is ".... questionable applicability of the [DCF] model when M/B ratios deviates substantially from 1.00...". Actually, the DCF model is specifically designed to determine the proper cost of equity irrespective of the market-to-book ratio because it determines the return investors demand on market price. Then, when other regulatory principles are properly applied, the return on the original cost rate base is set equal to the return demanded by investors on book value. In this way, the principles of the *Hope* case are specifically met.

Q. HAVE REGULATORY AGENCIES RELIED UPON THE ABOVE PORTION OF THE *HOPE NATURAL GAS* DECISION THAT YOU HAVE QUOTED?

A. Yes. For example, FERC has stated the following:

> Specifically, they claim that when a utility's market-to-book ratio is above one, applying a DCF-based allowed rate of return to a book value rate base results in earnings that are too low. Conversely, when a utility's market-to-book ratio is below one, applying a DCF-based allowed rate of return to a book value rate base results in earnings that are too high. Both commenters argue that the allowed rate of return should be applied to a market value rate based rather than to book value.
>
> The following example demonstrates the circularity of their claim. Equity capital costs generally rise as interest rates rise. Conversely, equity capital cost rates generally fall as interest rates fall. During periods of risking equity costs, utilities generally file for rate increases to cover these higher costs. This action protects utility shareholders from declines in the value of the stock. The result is a tendency to maintain a utility's existing market-to-book ratio during periods of risking equity costs.

> During periods of falling capital costs, the revenue required to meet shareholder capital costs requirements also declines. Until a utility files for new rates at the lower capital cost, it continues to charge rates based on the higher equity capital costs that existed when the current rates were set. The result is a tendency for the utility to earn more than its shareholders currently require and a concomitant increase in the price of the utility's common stock and market-to-book ratio.
>
> When capital costs are below those of the previous filing, applying the allowed rate of return to a market value rate base would perpetuate the unnecessarily high revenues that the expense of utility's customers. **Applying the allowed rate of return to a book value rate base would reduce revenue to the level required by shareholders at the new lower cost of equity. These revenues will provide the utility with an opportunity to recover all costs including the cost of capital.**
>
> The argument over the application of an allowed rate of return to a market value rate base is an old one and the problem of circularity inherent in that approach has been long and widely recognized. **The Supreme Court's statement in Federal Power Commission v. Hope Natural Gas Co. that "rates cannot be dependent upon 'fair value' when the value of the going enterprise depends on earnings under whatever rates may be anticipated" reflects its recognition of that problem. The market value of an enterprise or its common stock depends upon its earnings or anticipated earnings, which in turn depends upon the rates allowed. Thus, market value is a result of the ratemaking process and may not properly be the beginning of the process as well.**

Docket RM87-35-000, P. 3348 of the Federal Register/ Vol. 53, No. 24, Friday Feb. 5, 1988. Emphasis added.

Similarly, the Federal Communications Commission (FCC) responded to an argument made by Ameritech which suggested that the FCC was "... obligated to prescribe a rate of return that will ensure continuation of the carriers' current market-to-book ratios."[9] The FCC rejected Ameritech's argument for several reasons. The reasons stated were:

[9]Page 15 of decision FCC 90-315 dated September 19, 1990, in CC Docket No. 89-624.

> ... market-to-book ratios greater than one have been viewed traditionally as possible indicators that the company's return is greater than its required return.
>
> ...Ameritech places great reliance on its perception that unless this Commission applies the market-derived rate of return to its equity base, stockholders will see a massive decline in the value of their stock. It is true that prescription of a rate of return based on market data could lead to a decrease in the value of the stock if investors have been expecting continuation of a previously-authorized higher rate of return. On the other hand, a reduced rate of return might have no impact on stock price if, as often happens, the reduction had already been anticipated and discounted by the market. In any case, the requirement that we balance ratepayer and investor interests does not allow us to insulate investors from a diminution in the value of their stock (if in fact we could do so). **In any event, if we prescribed a rate of return above that which market data showed to be reasonable, investors would increase their expectations as to the carrier's rate of return, market value would increase, and the carrier would seek a higher rate of return authorization so that these higher expectations are not thwarted. We would be remiss in our responsibilities to balance ratepayers' and investors' interests if we implemented procedures that effectively insulated a carrier from experiencing a decrease in its authorized return. Thus, our current market-based rate of return procedures meet the Bluefield/Hope criteria notwithstanding that their application herein may adversely impact carriers' high market-to-book stock ratios.**
>
> Moreover, market-to-book ratios greater than one have been viewed traditionally as possible indicators that the company's return is greater than its required return.

(Emphasis added)

(FCC-90-315, P. 15.)

IV. WATER COMPANY RISKS IN FLORIDA

Q. DR. MORIN CLAIMS, ON PAGE 40 OF HIS TESTIMONY, THAT THE WATER UTILITIES IN FLORIDA ARE MORE RISKY THAN WATER UTILITIES ELSEWHERE BECAUSE OF THEIR SMALLER SIZE AND BECAUSE OF USED AND USEFUL ADJUSTMENTS. PLEASE COMMENT.

A. The kind of risk that impacts the cost of equity is the non-diversifiable risk. Neither of these factors impact non-diversifiable risk and therefore do not impact the cost of equity.

Q. WHY DO DIVERSIFIABLE RISKS NOT IMPACT THE COST OF EQUITY?

A. Investors have the opportunity to purchase securities as part of an overall portfolio. Unexpectedly bad results at one company whose stock is owned in the portfolio will likely be impacted by unexpectedly good results at another company so long as the portfolio is appropriately diversified. Therefore, as long as the portfolio is diversified, the predictability of the income from a portfolio is much higher and therefore the risk is much lower than if only one company were owned. Conceptually, from the perspective of divrsifiable risk, a large water company is no different than a large portfolio of small water companies.

An analogy that is helpful could be made to gambling on whether either "red" or "black" will come up on a roulette wheel at a casino in Las Vegas. If the "investor" goes to the casino with $1,000 to bet and places all $1,000 on the roulette wheel all at once, the bet would be highly risky. There is a 50% chance (before consideration of the "house" take) that the "investor" would loose the entire investment. However, if the same investor made 1,000 bets of $1.00 each, the outcome is highly predictable. Within a very

narrow range, this investor would have close to $1,000 (absent considerations of the "house" take). It could be a little more, or a little less, but because the number of diversifiable bets would be very large (1,000) instead of very small (1), risk is significantly minimized.

Q. DO USED AND USEFUL ADJUSTMENTS INCREASE THE RISK OF INVESTING IN FLORIDA UTILITIES?

A. No. While a used and useful adjustment is a factor that must be considered, because the water company receives both a return of and a return on the plant that is disallowed on used and useful grounds as customers are added in the future, investors eventually receive much of the compensation associated with what was initially disallowed used and useful plant. Furthermore, the predictability of adding customers in future years is materially increased if the investor purchases the equity in the water utility as part of a diversified portfolio.

VII. DIRECTION OF CHANGE IN WATER COMPANY RISKS

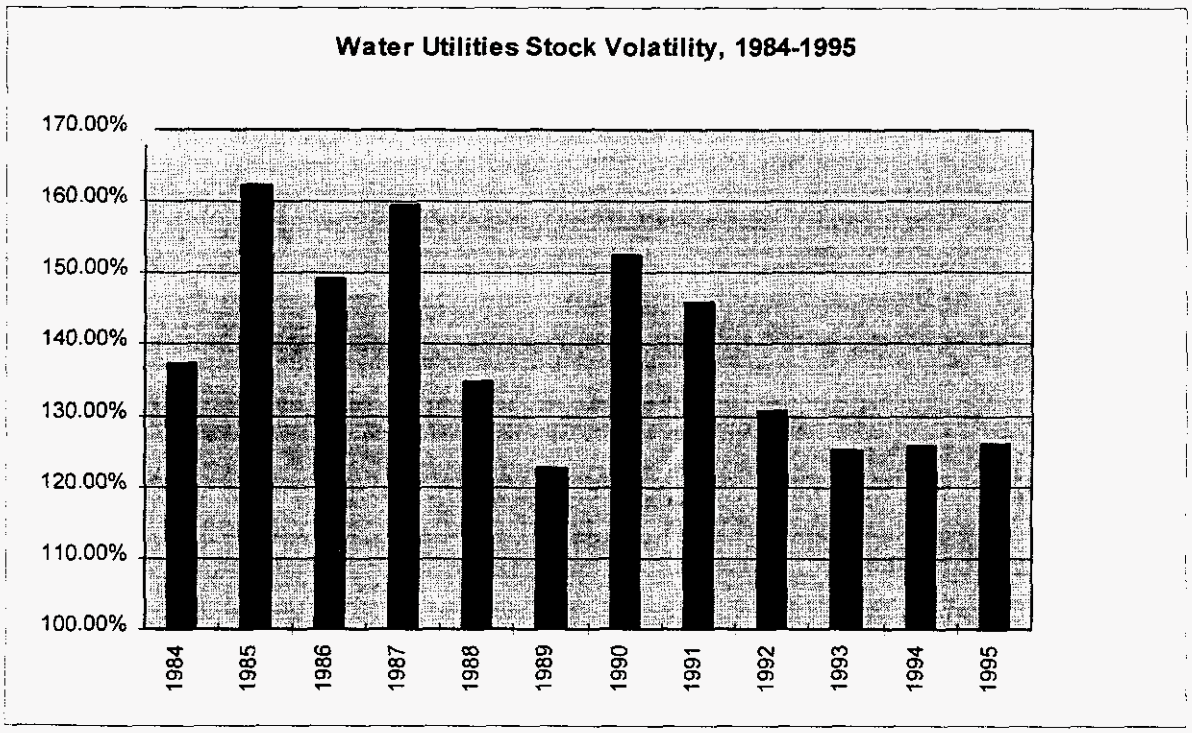
Q. ON PAGE 3 OF HIS TESTIMONY, DR. MORIN CONCLUDES THAT THE RISK OF WATER BUSINESS HAS INCREASED SUBSTANTIALLY IN RECENT YEARS. DO YOU AGREE?

A. No. My experience has shown that most company cost of capital witnesses argue that the company or industry for which they are testifying happens to have extraordinarily high risks. It is always possible to identify factors associated with any one business or any one industry which seem to cause that entity to have risk. However, risk is inherent in all businesses. This is specifically why the cost of equity for all investor owned companies is higher than the risk free interest rate. Because a simple listing of risks can make any company appear to be risky, when evaluating risks it is important to concentrate only on analytical analysis. Subjective comments relating to risk should be given minimal weight.

Q. DOES AN ANALYTICAL ANALYSIS SHOW A DIRECTION OF CHANGE IN THE RISK EXPERIENCED BY THE STOCKHOLDERS OF WATER UTILITIES?

A. Yes. One analytical method to determine how the risk of an industry is changing over time is to examine the range over which stock prices have traded. The common stock price at any one point in time is reflective of investors' expectations for the future. Risk is related to the difficulty with which future events relating to the value of a specific investment can be forecast. Therefore, the larger the range over which stock prices trade, the more significant the changes in investor expectations that were experienced over the time period that the stock price volatility was quantified.

In order to examine how investors' perceptions of risk have been changing for water utilities, I examined the difference between the high and low stock price that was achieved by the water utilities covered by Value Line for each year from 1994 to 1995. The results of this analysis are shown on Sch. JAR 12, P. 2, and are summarized on the following graph:



As shown in the above graph, the risk as indicated by stock volatility has been in a basic downtrend since 1985, and four of the five lowest volatility years since 1983 occurred in the most recent four-year period.

VI. RELATIVE RISK OF GAS COMPANIES AND WATER COMPANIES

Q. ON PAGE 39 OF HIS TESTIMONY, DR. MORIN CLAIMS THAT WATER UTILITIES ARE MORE RISKY THAN GAS UTILITIES. PLEASE COMMENT.

A. Dr. Morin is wrong. Water utilities are in a lower risk category than gas utilities. Other than air, water is the most basic commodity there is. As contrasted to natural gas, there are no substitute products available.

Standard & Poors has made it clear that it recognizes water utilities are in a lower risk category than gas utilities. This can be seen by comparing the benchmarks Standard & Poors has stated are required for a water utility to obtain an "A" bond rating and the benchmarks required for a natural gas distribution utility to obtain the same "A" rating. For example, the pre-tax interest courage required for a water utility to be within the benchmark for an "A" rating are 2.25-3.75, whereas the benchmark for a gas distribution utility to achieve an "A" rating is 3.0-4.25. Similarly, for a "BBB" bond rating, the benchmark range for water utilities is 1.25-2.75, while the benchmark range for gas distribution utilities is 2.0 to 3.25. Similarly, water utilities can use more debt in the capital structure than gas distribution companies with the same bond rating. The benchmark level of debt in the capital structure for an "A" rated water utility is 48-56%, while the benchmark level of debt in the capital structure of a gas distribution utility is 42-50% debt. A water utility can use between 54-62% debt and still be within the benchmark guidelines for a "BBB" rating, while a gas distribution utility must stay within 47-60% debt to be consistent with the guidelines for a "BBB" bond rating.

Q. DOES MARKET PRICE DATA OF COMMON STOCK MOVEMENTS SUPPORT THE FACT THAT WATER UTILITIES HAVE A LOWER RISK THAN GAS DISTRIBUTION UTILITIES?

A. Yes. As previously explained, one analytical indicator of risk is the magnitude of stock price movement within a year. As shown on Sch. JAR 12, P. 1, the difference between the high and low stock price of water utilities has been smaller than the similar movement of the stock price movement of gas distribution utilities in every year since 1991.

VII. LIQUIDITY PREMIUM

Q. ON PAGE 46 OF HIS TESTIMONY, DR. MORIN RECOMMENDS ADDING A 0.2% LIQUIDITY PREMIUM TO THE COST OF EQUITY OF SSU. PLEASE COMMENT.

A. It is inappropriate to add this liquidity premium. Not only is such an addition speculative, equity capital is raised by SSU's parent, Minnesota Power and Light. Therefore, the liquidity of the investment is related to the cost of raising equity that is incurred by Minnesota Power and Light. The common stock of Minnesota Power and Light is traded on the New York Stock Exchange and does not command any liquidity premium.

Q. IS THERE ANY FACTOR WHICH SHOULD LEAD TO A DISCOUNT RATHER THAN A PREMIUM FOR SMALL WATER UTILITIES?

A. Yes. While I do not recommend adding such a premium because quantifying it would be speculative, a smaller water company is more likely to be purchased by another water utility than is a large water utility. Frequently when such acquisitions take place, they are for a price in excess of book value. The potential for the sale of assets in excess of book value is a reason why investors might find small water company investments especially attractive and therefore might actually pay a premium to own these companies rather than require the liquidity premium penalty as recommended by Dr. Morin.

VIII. IMPACT OF WEATHER NORMALIZATION CLAUSE

Q. IF A WEATHER NORMALIZATION CLAUSE IS IMPLEMENTED FOR SSU, WHAT IMPACT SHOULD THIS HAVE ON THE OVERALL COST OF CAPITAL?

A. A weather normalization clause would increase the predictability of revenues and earnings for a water utility. An increase in revenue predictability reduces the amount of common equity and increases the amount of debt in the capital structure that a water utility can safely use. This is because a weather normalization clause increases the amount of annual interest expense that a water company can count on being able to pay each year. Therefore, if a water company does respond to the existence of a weather normalization clause by increasing the amount of debt and the result of the debt increase is to lower the overall cost of capital, then there is a net cost of capital benefit from implementing a weather normalization clause.

Other than in response to a change in the capital structure, it is unlikely that the implementation of a weather normalization clause would lower the cost of equity. This is because variation from weather is a diversifiable risk. As explained earlier in this testimony, the cost of equity is only influenced by changes in non-diversifiable risks, not diversifiable risks.

Q. DOES THIS COMPLETE YOUR TESTIMONY?

A. Yes.

CHAIRMAN CLARK: Thank you. Mr. Beck.

MR. BECK: Yes. I have handed out a copy of the deposition of Stephanie Smith. I think we have all agreed to accept the deposition in lieu of calling her as a live witness, so I would ask that it be marked for identification and move it into the record.

CHAIRMAN CLARK: Okay. We will mark Ms. Stephanie Smith's deposition as Exhibit 184 and it will be admitted in the record without objection.

(Exhibit Number 184 marked for identification and received into evidence.)

MR. BECK: And next we call Charles Sweat to the stand.

CHAIRMAN CLARK: Mr. Sweat. Mr. Sweat, have you been sworn in?

WITNESS SWEAT: No, ma'am.

CHAIRMAN CLARK: Would you please stand and raise your right hand.

CHARLES L. SWEAT

was called as a witness on behalf of the Office of Public Counsel, and having been duly sworn, testified as follows:

CHAIRMAN CLARK: You may be seated. Mr. Beck.

DIRECT EXAMINATION

BY MR. BECK:

Q Mr. Sweat, would you please state your full name?

A My name is Charles L. Sweat.

Q Are you employed by Southern States Utilities, Incorporated?

A Yes, I am.

Q What position do you hold with the company?

A My title is Vice President of Corporate Development.

Q Have you held other positions with the company previously?

A Yes, I have.

Q Could you just briefly describe your last few positions with the company?

A Prior to the present title of Vice President of Corporate Development, I was Vice President of Operations. Prior to that I was President of Southern States Utilities. Prior to that I was Vice President of Operations.

Q Thank you. And how long have you been Vice President of Corporate Development?

A I believe since 1992.

Q Could you describe for us a little bit of what your job responsibilities are?

A Generally, I'm responsible for acquisitions.

Q And would you also have responsibilities with respect to sales, as well?

A Yes, sir, occasionally.

Q Are you the primary author of a document entitled Southern States Utilities, Incorporated, Strategic Growth?

A Yes, sir.

Q Could you describe what that document is?

MR. ARMSTRONG: Objection. Madam Chairman, I would like an identification of what issue this document would be addressing in the case.

MR. BECK: On the gains on sale, what we intend to do is show the big picture with Southern States on the acquisitions and divestitures that the company anticipates. The document that I'm about to ask Mr. Sweat about is their strategic plan for both acquiring facilities and companies as well as divesting facilities and companies. We will show that we can expect that they will be selling companies as a routine matter in the future, and that goes to the issue on recognizing the gains on sale of systems.

CHAIRMAN CLARK: Mr. Beck, do I have a document in front of me?

MR. BECK: No, you do not.

CHAIRMAN CLARK: Oh, okay. Mr. Armstrong.

MR. ARMSTRONG: It's total speculation, and we have just heard what the counselor says he expects and what the company anticipates. I don't think that it's relevant to any issue in this proceeding. I still didn't hear him identify what issue it relates to.

MR. BECK: It's the issue regarding recognizing the gains on sale of systems. Ms. Dismukes had some reference to this herself in her testimony, this will expanded on it. And it's in her system with respect to that issue.

MR. ARMSTRONG: My objection stands, Madam Chairman.

CHAIRMAN CLARK: All right. I will allow the question.

BY MR. BECK:

Q Mr. Sweat, are you the author of that document, among others?

A Yes.

Q Could you describe generally what that document does?

MR. ARMSTRONG: Objection. Madam Chair, can the witness be provided a copy of the document that we are referring to?

CHAIRMAN CLARK: Yes, I would like a copy of it, too, Mr. Beck.

MR. BECK: It has been claimed confidential by the company. I did not anticipate offering it. I'm using this to start him talking about the company's plans for acquiring and divesting companies.

CHAIRMAN CLARK: Well, even if it is confidential,

I think we need to have the document for the witness to examine, as well as his attorneys.

MR. BECK: Well, if he is familiar with what it is, I'm sure he can tell us. I had not planned to offer the document into evidence. It goes over much more than what I'm going to ask, and it was really in deference to the company.

CHAIRMAN CLARK: You don't have it with you?

MR. BECK: I have the original. I don't have copies.

CHAIRMAN CLARK: Mr. Armstrong, would you please go take a look at that document, and we will take five minutes and let you look at the document with the witness.

(Brief recess.)

MR. ARMSTRONG: Madam Chair, Mr. Hoffman raised an interesting issue, and that is that the document has been claimed as confidential, and I know this isn't a situation where we are dealing with dollars and cents, how do we handle asking questions about a document that's confidential in a public hearing with everybody here?

MR. BECK: I do not intend to ask him anything that would be confidential. I'm just using this as a basis for starting to discuss the company's plans for acquiring and divesting companies.

CHAIRMAN CLARK: We will take five minutes and you

can get together with Mr. Beck and with the witness and discuss how you're going to handle this document.

(Brief recess.)

MR. BECK: Madam Chairman, I'm going to try to not discuss this document at all, and I will try the questions that way.

CHAIRMAN CLARK: Thank you, Mr. Beck.

BY MR. BECK:

Q Mr. Sweat, in your capacity as Vice President of Corporate Development, have you had occasion to consider the criteria the company would apply both with respect to purchasing facilities or systems and selling facilities and systems?

A Yes. Generally, when we are looking at a utility for acquisition, I want to try to make sure that it is geographically located near other SSU facilities, that it has got growth in it, it has got -- generally it would not require any additional operating staff because of its geographic location.

Q And with respect to selling systems that Southern States currently owns, do you have certain criteria that you would apply to consider whether to divest the company of those systems?

A The President of Minnesota Power has stated that Southern States has no facilities for sale.

Q Well, that really doesn't -- let me try this. Have you had occasion to consider criteria that you believe the company should apply when looking at selling systems that it currently owns?

A If I was to suggest that we sell a particular system, it would probably be because it's not geographically located in a region that has other facilities, it is high cost operation, it may be high cost capital intense.

Q And have you had occasion to consider applying those criteria to any of the systems Southern States currently owns?

A Not yet.

Q Well, you have considered the application of those criteria to systems they own, have you not?

A No, I don't believe so.

Q In the document that we discussed earlier, the Southern States Utilities Strategic Growth Plan, did you not consider application of certain criteria to systems the company owns to whether they should be sold?

A In that regard, yes, I have documented my opinion in a draft document.

Q And did you pass that draft document amongst the officers of Southern States for their consideration?

A I have distributed that document to all the officers of Southern States, yes.

Q And did the president and the executive committee agree with your analysis that you performed?

A No.

Q Do you recall your deposition, Mr. Sweat?

A Yes.

Q Do you recall the question, "Have you discussed that matter specifically with the president of the company," discussing what we have just now. And your answer was, "I have discussed this matter with the president of the company, as well as the executive committee, which is basically made up of the management team of Southern States, for the most part vice presidents, and I think there is a buy-in into that theory. There has been no official approval of that, however." Do you recall that?

A Yes.

Q And were you telling me the truth when you told me that in the deposition?

A Mr. Beck, I always tell the truth. If I may, I had had individual meetings with each of the executives, and I did feel like there was buy-in. And if you also recall, and obviously you're looking at the deposition, the comment from the president, as I stated in the deposition was, "It was a well-written document." That was his only comment. I don't consider that a buy-in.

Q Without naming the specific systems, did you

recommend that certain systems be sold, or certain systems Southern States owns be sold?

A That document provides my opinion of systems that should be considered.

Q Has there been any further review of your proposal since the time of your deposition, last November?

A I don't believe anybody has looked at or discussed my proposal, no.

Q And without naming the specific systems, could you tell us how many systems you had proposed in your document be sold by Southern States?

A I don't recall the number, no.

Q Can you give me a ballpark or would you like to see the document to actually count them?

A Ballpark is probably double digit, somewhere less than 20.

MR. BECK: Thank you. That's all I have.

CHAIRMAN CLARK: Mr. Jacobs.

MR. JACOBS: Thank you, Madam Chairman.

CROSS EXAMINATION

BY MR. JACOBS:

Q Mr. Sweat, I know you have been here throughout the day and so you perhaps know that I'm representing the consumers and users and ratepayers in Nassau County who do business with Amelia Island Utility Company. You're aware

of that prior discussion, is that not correct?

A No, sir.

Q Well, that's who I am, and that's why I'm here.

A I didn't hear who you are and who you represent.

Q I'm Buddy Jacobs, and I represent the Amelia Island Utility Company users, which are part -- that is the Nassau County branch of your company, okay.

Now, Mr. Sweat, you have been with the company how long?

A 32 years.

Q So you have been involved in the build up of SSU prior to its sale to Minnesota Power, is that correct?

A That's correct.

Q When Minnesota Power bought it, what was the year, 1987/'88?

A 1984.

Q 1984?

A Yes, sir.

Q At the time that they purchased it, were you the president of the company?

A No, sir.

Q What was your position?

A I was Vice President of Operations.

Q All right, sir.

A Correction. To correct the record, I was

Executive Vice President.

Q You then participated in the sale discussions with Minnesota Power, is that correct?

A The sale of SSU to Minnesota Power?

Q Yes.

A No, sir, I did not.

Q You were not at all privy to those conversations?

A No, sir.

Q You did not help prepare any of the documentation for the sale of SSU to Minnesota Power?

A No, sir.

Q At the time, do you have any reason to doubt that the declarations made by SSU to Minnesota Power were not true and correct?

A No, sir.

Q You have now been involved in purchasing utility companies for SSU, is that not correct?

A That's correct.

Q All right. Whenever you do that, don't you look at the rate of return you can receive on your investment, such as the rates that are being charged?

A Yes, sir.

Q Don't you consider how old the facility might be, its condition in which you find it for purchase?

A Yes, sir.

Q Don't you consider, as well, the need for capital improvements, infrastructure, and things of that nature as you go through that purchasing process?

MR. ARMSTRONG: Objection. Madam Chair, Mr. Jacobs never participated in the question of what issue the witness was here to refer to, but I think we are going far afield of what the representation was made as to why this witness has been produced.

MR. JACOBS: Nobody asked me to participate, and I think these questions are certainly relevant to the direct as to the gentleman's position with the company, and I think I'm entitled to follow this trail of inquiry.

MR. ARMSTRONG: The company is also entitled to have due process notice for a witness to get up on the stand. To think that any witness who gets up there is subject to being asked any question out of 160 issues, and I think at the prehearing statement we identified that several times, Madam Chair.

CHAIRMAN CLARK: Mr. Jacobs, I had understood that he was called as Public Counsel's witness to discuss the policy on relative -- or to discuss the issue of gain on sale. You are now inquiring as to prior to the time it was sold to Minnesota Power. I think that is beyond the scope of the direct examination of him.

MR. JACOBS: Madam Chairman, I then -- the

question that led to this line of questioning was have you then since its acquisition by Minnesota Power, have you been involved in the acquisition of other companies, and he said yes. Then I asked him as you go through that process is this involved in your process of thinking for that acquisition, and that's when I got into these particular questions. So this is subsequent to the purchase by Minnesota Power that this line of questioning is going towards.

CHAIRMAN CLARK: Mr. Armstrong.

MR. ARMSTRONG: Madam Chair, I think what we heard from OPC, who was the only one who participated at all in the discussion of what this witness would be required to testify about, told you just a little while ago that they wanted to get into the issue of what kind of companies Southern States would be in the future.

CHAIRMAN CLARK: Okay. Mr. Jacobs, I had understood that the purpose of having Mr. Sweat here was to talk about potential sales of systems, and you seem to be covering the issue of how they decide to acquire those systems.

MR. JACOBS: Madam Chairman, the purpose of his testimony here, as I understand it, is to talk about they are in the buying and selling business of utilities. In other words, it's not -- they are certainly a utility

company, but they have a history of buying and selling companies. It goes towards the return that they receive on their investment, whether or not these things are rehabbed by them and then moved forward for sale. I just want to understand their philosophy.

CHAIRMAN CLARK: But I don't think that goes to the issue of gain on sale. Mr. Twomey.

MR. TWOMEY: I'm sorry.

MR. JACOBS: When you look at a company like this, I think you have to look at it in a global fashion. You can't just take one segment of what they do as far as their ability to have a return on their investment. I think it's important to know the philosophies that they have utilized in the past for the acquisition of companies, and then you talk about the sale, and I wanted to get into the fact of how do they -- I know that the statements you have heard here from others, the letters that have been presented, this company is in the business of taking rural utility companies and making them a viable company. I think it's certainly a necessary inquiry that I'm making.

CHAIRMAN CLARK: Well, here is my problem. This is a witness called by Public Counsel, he questioned him on a limited area. You had the opportunity to call him as your own witness to ask these questions. I'm going to allow you to follow up just briefly, but then I will call a halt to

further questions in this area.

MR. JACOBS: All right. Thank you. I think that's fair. I appreciate it.

BY MR. JACOBS:

Q My question, again, and I asked you this series, in other words, you take all of these things into consideration whenever you purchase a utility company, is that not correct? The rates, the condition you find it, the capital improvements, their environmental compliance and noncompliance, these are all considerations, is that not correct?

A That's correct.

Q And the amount that you pay for that company is based upon how you find each one of these conditions and that's how you evaluate that purchase, is that not correct?

MR. ARMSTRONG: Objection. Madam Chair, this is far beyond --

CHAIRMAN CLARK: I think it is, Mr. Jacobs.

MR. TWOMEY: May I comment?

CHAIRMAN CLARK: That to me goes to the issue of an acquisition adjustment, and we were talking about the gain on sale. That's the issue that he has been subpoenaed here for today. As I said, you had the opportunity to call him as your witness if you wanted to have him testify on other issues.

MR. JACOBS: I will drop that line and go to another one.

CHAIRMAN CLARK: Okay.

BY MR. JACOBS:

Q You stated on direct that the reason that you would sell a company is that it was not geographically located and that it had high cost operations; do you remember making that statement?

A Yes, sir.

Q And you said that of the 140 or 150 companies that you own today that you think that only applies to 20 companies, is that correct? You said double digits, less than 20?

A I don't think I said that. That scenario only applied to those numbers somewhere in the neighborhood of less than 20. I believe that I recommended approximately 20 utilities that we should consider for divestiture, that was my statement.

Q All right. Out of the 20, how much -- what percentage of that is of your inventory of companies?

A It's a small percentage.

Q And did you recommend that those be sold within one year?

A Would you ask the question again.

Q In other words, you recommended they be sold -- is

it part of your recommendation that they be sold within a one year time frame?

A I don't recall recommending that.

Q Do you recall over what period of time they should be sold?

A I don't think I addressed a period of time that those systems should be sold.

Q Would it be your philosophy that they be sold within five years?

A I don't think I have a particular philosophy on when they should be sold. It was merely a recommendation that they should be considered.

Q I think you have answered the question, but I just want to ask you again. But how long in your philosophy that these should be sold because they are not geographically proper within your locale framework of the company and they have high cost operations, how long can those things exist before they should be sold?

MR. ARMSTRONG: Objection. I believe it was asked and answered. In the response just before he said he didn't recommend -- he recommended they be considered for being sold. He also has stated that he didn't make any recommendation as to when they would be sold.

CHAIRMAN CLARK: Mr. Jacobs, that is what I heard.

MR. JACOBS: All right. Thank you, Madam

Chairman.

BY MR. JACOBS:

Q If those companies are sold, do you have any recommendation that other companies should be purchased?

A I didn't hear the end of your question.

Q Do you have any recommendation for the purchasing of other companies?

A Yes, sir.

Q And you are looking at those as Vice President of Development since 1992, your looking at buying companies all the time, is that not correct?

A That's part of my job, yes, sir.

Q And that's basically a strong philosophy of your company, is to seek an aggressive purchase of other companies, is that not correct?

A That has been, yes, sir.

Q And whenever you're looking at those companies, as you move forward in this aggressive way, you are looking to purchase companies based upon the conditions we stated earlier, and so you would want them to be economically viable based upon the purchase price for which you seek to buy those companies, is that not correct?

MR. ARMSTRONG: Madam Chair, I am going to object. This is pie in the sky. I have never heard this come into any rate case in a career of doing this. It's speculation

as to what might happen in the future. That has nothing to do with an issue in this case.

CHAIRMAN CLARK: Mr. Jacobs.

MR. JACOBS: I think it does go to the very heart of the case. They purchase companies. They've purchased a lot of them in Florida. He recommends they sell 20, and yet in his full-time job as Vice President of Development, it is to seek to buying other companies. Whenever they look at each one of these companies based upon these conditions, they should have some viability on their own and should not seek and need to seek to have a rate applied to other members of that company for the purchase so that this becomes an economically viable investment, not one that requires other ratepayers to bolster up that purchase. And I think that's a fair line of questioning that I'm making at this time.

CHAIRMAN CLARK: Mr. Jacobs, I don't think it is within the scope of the questions he was asked on direct, and it seems to me it is argument with respect to what may be your position on the issue of acquisitions. And as I said before, you had the opportunity to call witnesses and I don't think it's appropriate at this time to allow that line of questions.

MR. JACOBS: I have no further questions, then.

CHAIRMAN CLARK: Mr. Twomey.

MR. TWOMEY: Yes, ma'am.

CROSS EXAMINATION

BY MR. TWOMEY:

Q Mr. Sweat, in response to Mr. Beck's questions, you listed a number of factors, did you not, that bring one of your utilities, one of your systems into the range as a candidate for a sale, a prospective sale, right? Wasn't one of them high cost?

A High cost of operation, I believe, was one of them, and high capital intensity was my other comment.

Q Okay. Let me ask you first, what do you mean by high capital intensity?

A It would require capital dollars to make certain improvements, it may be for capacity, it may be for compliance issues. That's high capital intensity dollars for small systems, in my opinion.

Q Just so I'm sure I understand what you're saying, you are saying that a -- are you saying that a system that needs a great deal of capital infusion to bring it into compliance, that would be one factor that would make a system that you hold now a candidate for sale in your analysis, is that correct?

A In my opinion, yes, sir.

Q And the second one you mentioned was high operations costs, right?

A That's correct.

Q And by high operations costs, I assume you mean on a stand-alone basis, is that correct?

A That's correct.

Q Exclusive of any consideration of common cost allocations, correct?

A That's correct.

Q Now, why would those two factors make you recommend as likely candidates such systems for sale?

A It's just not those two factors, it is other factors. There is no growth, geographically the system may be located several miles from existing operations, it may take a special operator to maintain the small system that has no growth, it maybe needs compliance capital dollars invested. All of those things play a role.

Q Okay, sir, but help me understand why any of those factors are a problem for your company that would cause you to consider them for sale? I mean, high operating cost alone, there is nothing wrong with that, is there?

MR. ARMSTRONG: Objection. Madam Chair, I think we are going far afield still. The issue is acquisition adjustments in this case. This has no relevance to this case. This could be said about any utility at any time.

MR. TWOMEY: We are not talking about any utility at any time, Madam Chairman, we are talking about Southern

States. And the acquisition, the gain on sale is a primary issue in this case. It goes back to the Venice thing, how they select utilities and so forth. I think it's fair. I'm talking about factors that he spoke of in direct response to questions by Mr. Beck. Now, I don't know how much Mr. Armstrong would have us limited, although I suspect how much he would like to see it limited. This is an important issue on how they got a lot of the systems. The gain on sale issue goes to --

CHAIRMAN CLARK: Mr. Twomey, I'm going to allow the question, because I do believe it is within the scope of what he was asked by Mr. Beck. But as I indicated to Mr. Jacobs, you had the opportunity to call him as your witness if you wanted to cross examine him on a further subject, but so far I think you're within the scope of what was asked.

MR. TWOMEY: And that's what I'm trying to do, in the spirit of trying to do that.

BY MR. TWOMEY:

Q So, given that you have responded to Mr. Beck, as I think you did, that high operations costs is one of the criterion that would cause you to consider this utility as a candidate, my question to you is what is wrong inherently, if anything, about a system with high operating costs that would make you want to get rid of it?

A Very simply, SSU has been operating at a loss for

a number of years, and to carry systems that continue to have high burden cost operations, I don't think is fair to the shareholders or the ratepayers, and we should look at these systems as any other business would look at their company, and if you've got an asset that's not producing maybe you should consider getting rid of that asset.

Q What do you mean by "fair to the ratepayers"? Isn't it true that the high cost of operation, as well as the second factor that you mentioned, the capital intensity needs, those needs will follow the customers of that system, won't they?

A Well, they may, but they may be the economies of sale for a new owner, possibly a city or a county that has a larger customer base. The economies of scale may play a major factor there, and the costs may not be the same as it would with our company.

Q Okay. Now, you have been with the company for three decades plus, you said, right?

A That's correct.

Q Isn't it true that you bought a great many of the systems we are talking about here in terms of the candidates for sale?

MR. ARMSTRONG: Objection, Madam Chair. Again, what issue are we referring to with regard to this?

MR. TWOMEY: Gain on sale.

MR. ARMSTRONG: Gain on sale? This is impossible that it could relate to gain on sale. Were you there decades ago when the company was buying utilities?

CHAIRMAN CLARK: Mr. Armstrong and Mr. Twomey, we need to keep it to one person at a time. He is objecting on the grounds that it does not relate to what he was asked on direct from Mr. Beck.

MR. TWOMEY: And my response is that it depends, it depends on how tightly you want to construe what Mr. Beck was questioning about. I would suggest to you, Madam Chairman, that the question of how SSU and Mr. Sweat in a personal sense probably, if he was allowed to answer the questions, bought the systems they hold has a very direct relation to the way they go about selling them and considering the gain on sale that results. And that's where I want to inquire. It won't take long.

CHAIRMAN CLARK: Mr. Twomey, I do think it has gone beyond the scope of what he has elicited on direct, and I would point out, again, that while it may be relevant to another issue or some broader issue with respect to this utility, you had the opportunity to call him as a witness and inquire on your own as to that line of questioning.

MR. TWOMEY: Okay.

BY MR. TWOMEY:

Q With respect to the gain on sale issue, Mr. Sweat,

do the high operating costs and the capital intensity requirements give you an advantage, do you find those to be advantageous as well in finding potential buyers for them?

MR. ARMSTRONG: Objection. What gain on sale issue are we referring to? There is one in this case that has to do with past gains on sale, is that what we are alleging this question refers to?

MR. TWOMEY: That's what I thought Mr. Beck said his question was on.

MR. ARMSTRONG: No, I believe he said the future plans for the acquisition and divestiture of systems, that was of the ruling of the Chair, and it was what was represented as being the issue to be discussed by Mr. Sweat.

MR. TWOMEY: I think it falls within it.

CHAIRMAN CLARK: Let me hear your question again.

MR. TWOMEY: He has testified in response to Mr. Beck's questions that the factors that SSU considers or he considers in offering up systems for sale are their high operating costs and their capital intensity, meaning that they need repairs. And my question to him is, are those factors that you find, the high cost and the high intensity, that lead you to be able to sell them easier than perhaps other systems.

CHAIRMAN CLARK: I think that is a fair question.

WITNESS SWEAT: Since I haven't sold any yet, I

don't know if it's going to be easy or hard. It may be difficult to sell these small systems. There may not be a real buyer out there. I really don't know yet.

BY MR. TWOMEY:

Q Is your current plan to -- you testified that Mr. Sandbulte -- I assume you meant Mr. Sandbulte, or did you mean -- you said the president of the parent corporation?

A I said the President of Minnesota Power, which is Mr. Edmund Russell.

Q Mr. Russell said that you had no systems for sale now, right?

A That's correct.

Q Do you expect that to change as soon as you get a rate order out of this Commission?

A I can't speculate on Mr. Edmund's future decisionmaking.

Q Mr. Russell's?

A Mr. Russell, excuse me, yes.

MR. TWOMEY: That's all I have.

CHAIRMAN CLARK: Staff.

CROSS EXAMINATION

BY MS. JABER:

Q Mr. Sweat, if the Commission approved a rate structure for SSU that is other than the uniform rate structure, do you know if SSU will petition the court to

have a substitute receiver appointed for the Enterprise system?

A I don't know.

Q Has any member of SSU had those discussions in front of you about the possibility of the acquisition or receivership of Enterprise?

A There has been discussion as to trying to get the receivership resolved either by ownership or giving it up. I don't know exactly.

Q If I wanted to ask that question of someone else testifying, Mr. Sweat, who would I ask?

A I believe that Ms. Teasley was working on that system.

MS. JABER: Thank you.

CHAIRMAN CLARK: I'm sorry, I probably should have gone to you, Mr. Armstrong or Mr. Hoffman.

MR. ARMSTRONG: That's okay, I just have a little bit.

CHAIRMAN CLARK: Go ahead.

CROSS EXAMINATION

BY MR. ARMSTRONG:

Q Mr. Beck had referred to your deposition, and a question and answer in your deposition and, Mr. Sweat, it's a little bit more than a page and a half, but I think it's the quickest way. If you could just read the questions and

answers that begin at Page 18, Line 18, through Page 19, Line 19.

A "Question: Okay. Now, you helped prepare a document that's entitled, as I recall, a strategic plan for the company?

"Answer: Yes.

"Question: Okay. And that was a draft, as I understand it, of a strategic plan actually, is that correct?

"Answer: That's correct.

"Question: Did it pass through the Southern States executive offices, has it been approved at the Southern States level?

"Answer: Not yet.

"Question: Okay. Has it gone up to Minnesota Power or the Topeka group for consideration?

"Answer: Not yet.

"Question: Okay. What is your plan toward having a review of that proposed strategic plan?

"Answer: I have turned it over to my boss and he hasn't made a decision. I don't know where that is going to go, quite frankly.

"Question: Have you had any discussions with the president about the content of the draft strategic plan?

"Answer: Briefly, yes.

"Question: And could you briefly describe what those conversations were?

"Answer: He said it was well-written."

Q And has your draft plan ever been approved to date?

A No, sir.

MR. ARMSTRONG: Thank you, Mr. Sweat. That's it, Madam Chair.

MR. BECK: That's my copy of the deposition, I need to look at it a moment. I may have him read another page.

REDIRECT EXAMINATION

BY MR. BECK:

Q Mr. Sweat, could you please continue reading the deposition through the end of the next page?

A "Question: Other than the style in which it was written, did he discuss the content?

"Answer: On two occasions he said it was well written. No, he has not. He has not.

"Question: Okay. In your plan you discuss the possibility of selling certain systems that you presently own, is that correct?

"Answer: That's correct.

"Question: Now, without naming those systems, can you tell me the criteria that you applied or generally used

to determine which systems the company might be interested in selling?

"Answer: Yes. In developing this plan, I looked at a location of various systems. The size of the systems, the capital intensity of the systems, whether they could grow or not grow, and determined that it would possibly, that it would probably be best if the company looked at these systems as a divestiture as opposed to a continued ownership of those utilities based on that criteria.

"Question: Okay. And have you discussed that matter specifically with the president of the company?

"Answer: I have discussed this matter with the president of the company, as well as the executive committee, which is basically made up of the management team of Southern States, for the most part vice presidents. And I think there is a buy-in into that theory. There has been no official approval of that, however.

The last question of that page, do you want that read?

MR. BECK: No, I think that's fine. Thank you, Mr. Sweat, that's all I have.

CHAIRMAN CLARK: Okay. And there are no exhibits for Mr. Sweat, is that correct?

MR. BECK: That's correct.

CHAIRMAN CLARK: Thank you, Mr. Sweat, you are

excused.

WITNESS SWEAT: Thank you, Madam Chairman.

CHAIRMAN CLARK: I would propose that we conclude for the evening. And if I may, let's just look briefly at what we have to do tomorrow. I had indicated to staff that we will reconvene at 1:00 o'clock or as soon thereafter as the agenda is concluded. My aide has indicated to me he thinks we will be done before lunch, but you never know. So plan on 1:00 o'clock, and at that time, help me out here, who should we start with?

MR. BECK: Tracy Smith.

CHAIRMAN CLARK: Tracy Smith and then Brian Armstrong? Okay. And then we will go to staff witnesses or --

MR. TWOMEY: We need to get Mr. Hansen in.

CHAIRMAN CLARK: All right. Why don't we do this, why don't we do Tracy Smith, Mr. Armstrong, and then Mr. Hansen. And then Judge Mann and Chris Carter are Wednesday, right?

MR. TWOMEY: Judge Mann is Wednesday.

CHAIRMAN CLARK: So then after we conclude Mr. Smith, Mr. Armstrong, and Mr. Hansen, then we can move into staff testimony.

MS. JABER: Charleston Winston?

CHAIRMAN CLARK: Yes. All right. Is there

anything else we need to take up this evening?

MR. TWOMEY: Madam Chair.

CHAIRMAN CLARK: Yes, Mr. Twomey.

MR. TWOMEY: Mr. Free suggested that he didn't care since they are calling Mr. Smith, and Mr. Armstrong, if Mr. Hansen went first. So if you would consider that, and the other parties don't object, it might be we could get him first thing in the early afternoon.

CHAIRMAN CLARK: I think that's a good idea. So the first person we will take up when we reconvene is Mr. Hansen.

MR. TWOMEY: Thank you very much.

CHAIRMAN CLARK: All right. And we are adjourned until 1:00 o'clock tomorrow. Thank you very much.

(Transcript continues in sequence with Volume 27)

Florida Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619
813-744-6100

Virginia B. Wetherell
Secretary

April 20, 1994

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Citrus County DW

Mr. Rafael A. Terrero, P.E.
Chief Engineer
Southern States Utilities
1000 Color Place
Apopka, FL 32703

WARNING LETTER No. 94-0031DW09SWD
Subject: Apache Shores STP

Dear Mr. Terrero:

A field inspection conducted on 4/19/93, 6/10/93, and 3/23/94 and a review of the file of the above referenced facility indicates that a violation of Chapter 403, Florida Statutes, and the rules promulgated thereunder may exist at the above described facility. Department personnel observed the following.

1. A sample of the effluent was taken during the 3/23/94 inspection and analyzed at the Department's laboratory. The result was 355 mg/L for TSS which exceeds the permitted maximum limitation of 60 mg/L.

2. A sample of the effluent was taken during the 4/19/93 inspection and analyzed at the Department's laboratory. The results were 2483 mg/L for TSS, and 271 mg/L for $CBOD_5$.

3. A review of the file show no record of the Capacity Analysis Report. The three month average daily flow reported on the Monthly Operating Reports exceeded 50 percent of the 0.017 MGD permitted capacity on the months below in 1993 and 1994 to date.

Month	Three Month Average
February 1994	0.011 MGD
January 1994	0.010 MGD
April 1993	0.009 MGD
March 1993	0.009 MGD
February 1993	0.010 MGD
January 1993	0.010 MGD

4. The file shows the previous sludge analysis was performed on 2/4/93.

5. The Department has no record of flow calibration.

6. A review of the operator's calibration records indicated that the pH meter and colorimeter for chlorine residual measurements were last calibrated on 12/20/93.

7. A review of the on-site operator log indicated that on 11/26/93 the blower was tripping out, and on 12/10/93 the blower was not working. The Department was not notified of these abnormal events.

8. An excessive amount of wet and dried sludge was observed on the bottom of the percolation pond, which indicated frequent plant upsets. The Department was not notified of these plant upsets.

9. The effluent distribution system for the percolation was predominantly plugged with solids. The threaded plugs at the ends of the distribution pipe were removed to allow the effluent to flow into the pond.

It is a violation of Rule 17-600.740(1)(b)1.d., Florida Administrative Code (F.A.C.), to exceed 60 mg/L of $CBOD_5$, and TSS on any one sample of effluent.

It is a violation of Rule 17-600.405(3), F.A.C., to fail to submit to the Department a capacity analysis report when the most recent three-month average daily flow exceed 50 percent of the permitted capacity of the treatment plant.

It is a violation of Rule 17-640.700(1), F.A.C., to fail to perform domestic wastewater residuals analysis every 12 months for a Type III facility.

It is a violation of Rule 17-601.200(17)(b), F.A.C., to fail to calibrate a flow metering device at least annually.

It is a violation of Rule 17-601.400, F.A.C., to fail to use approved test procedures and established quality control procedures for field testing and laboratory testing.

It is a violation of Rule 17-600.750(1), F.A.C., to fail to notify the department within 24 hours of events which result in the violation of any condition of a permit.

WARNING LETTER No. 94-0031DW09SWD
Subject: Apache Shores STP
Page Four

by the Department in the Notice of Violation. The Department can also resolve any violation through entry into a Consent Order.

Sincerely,

Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

cc: Dawn Shaw, Citrus County PHU

P 079 940 696

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
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ttach this form to the front of the mailpiece, or on the back if space
not permit.
/rite "Return Receipt Requested" on the mailpiece below the article number.
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ered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
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Consult postmaster for fee.

Article Addressed to:
afael A. Terrero, P.E.
hief Engineer
outhern States Utilities
000 Color Place
popka, FL 32703

4a. Article Number
P 079 940 696

4b. Service Type
☐ Registered ☐ Insured
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☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
4.22.94

Signature (Addressee)

Sig (Agent)

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orm 3811, December 1991 ★U.S. GPO: 1992—323-402 DOMESTIC RETURN RECEIPT

PENALTY COMPUTATION WORKSHEET

Violator's Name: Southern States Utilities

Identify Violator's Facility: Apache Shores WWTP

Name of Department Staff Responsible for the Penalty Computations:

Phyllis James

Date: April 28, 1995

PART I - Class B (no penalty) Determination

Rationale for Class B determination: N/A

PART II - Class A Penalty Determinations

	Violation Type	Potential for Harm	Extent of Dev.	Matrix Amount	Multi-day	Adjustments	Total
				(600- 1199)			
1.	Poor effluent	Minor	Mod.	$600.00		(-$300.00)	$300.00
				(2,000-3199)			
2.	Lack of records	Mod.	Mod.	$2,000.00		(-$1,000.00)	$1,000.00
				(1200-1999)			
3.	Failure to main. equip.	Mod.	Minor	$1200.00		(-600.00)	$600.00
				(3200-4599)			
4.	Failure to notify	Mod.	Major	$3200.00		(-$1600.00)	$1600.00

Total Penalties for all Violations:	$3,500.00
Department Expenses	250.00
Total Proposed Settlement	$3,750.00

PENALTY COMPUTATION WORKSHEET

Part III - Multi-day Penalties and Adjustments

ADJUSTMENTS	Dollar Amount
Good faith/Lack of good faith prior to discovery:	
Justification:	
Good faith/Lack of good faith after discovery:	(-$3,500.00)
Justification: Good faith after discovery	
History of non-compliance:	
Justification:	
Economic benefit of non-compliance:	
Justification:	
Ability to pay:	
Justification:	
Total Adjustments:	(-$3,500.00)

MULTI-DAY PENALTIES	Dollar Amount
Number of days adjustment factor(s) to be applied:	
Justification:	
Or	
Number of days matrix amount is to be multiplied:	
Justification:	

PENALTY ASSESSMENT MATRIX*

EXTENT OF DEVIATION FROM REQUIREMENT

POTENTIAL HARM	MAJOR	MODERATE	MINOR
MAJOR	$10,000 to $ 8,000	$ 7,999 to $ 6,000	$ 5,999 to $ 4,600
MODERATE	$ 4,599 to $ 3,200	$ 3,199 to $ 2,000	$ 1,999 to $ 1,200
MINOR	$ 1,199 to $ 600	$599 to $200	$199 to $100

*Reduced by 1/2 all categories for potable water cases.

Department of Environmental Protection

D.E.P.
MAY 19 1995
SOUTHWEST DISTRICT
TAMPA

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

May 5 ,1995
Citrus County

Scott Vierma, Interim President
Southern States Utilities
1000 Color Place
Apopka, Florida 32703

Re: Proposed Settlement by Short Form Consent Order in Case of Southern States Utilities dba Apache Shores WWTP, OGC File No. 95-0314.

Dear Mr. Vierma:

The purpose of this letter is to complete the settlement of the violations previously identified by the Department of Environmental Protection ("DEP") in Warning Letter No. WL94-0031DW09SWD dated April 20, 1994, which is attached. The corrective actions required to bring your facility into compliance have been performed. However, you must pay to the Department the amount of $3,500.00 in civil penalties to complete settlement of the violations described in the attached Warning Letter along with $250.00 to reimburse DEP's costs, for a total of $3,750.00. This payment must be made to "The Department of Environmental Protection" by certified check or money order and shall include thereon the OGC number assigned above and the notation "Pollution Recovery Fund". The payment shall be sent to the Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318 within 20 days of your signing this letter.

Your signing of this letter where indicated at the end of page two of this letter constitutes your acceptance of DEP's offer to settle this case on these terms. If you sign this letter, please return it to DEP at the address above. DEP will then countersign the letter and file it with the Clerk of the DEP. When the signed letter is filed with the Clerk, the letter shall constitute a Consent Order, which is final agency action of the DEP, the terms and conditions of

which may be enforced in a court of competent jurisdiction pursuant to Sections 120.69 and 403.121, Florida Statutes. Failure to comply with the terms of this letter once signed by you and entered by the DEP Clerk shall constitute a violation of Section 403.161(1)(b), Florida Statutes.

By countersigning this settlement offer, DEP waives its right to seek judicial imposition of damages, costs and expenses, or civil penalties for the violations described above. By accepting this settlement offer, you waive your right to an administrative hearing to contest this settlement pursuant to Section 120.57, Florida Statutes, and your right to appeal this settlement pursuant to Section 120.69, Florida Statutes. This offer to settle is open until **May 26, 1995** or until DEP otherwise withdraws the offer. If you do not sign and return this letter to the Department at the Southwest District address given above by this date, the case will be referred to the DEP's Office of General Counsel with a recommendation that formal enforcement action be taken against you. None of your rights or substantial interests are determined by this letter unless you sign it and it is filed with the DEP Clerk.

Sincerely,

Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

I ACCEPT THE TERMS OF THIS SETTLEMENT OFFER.

For Southern States Utilities:

By: _____
Scott Vierma, Interim Pres.
Southern States Utilities
1000 Color Place
Apopka, Florida 32703

For the DEP:

By: _____
Richard D. Garrity, Ph.D.
Director of District Management
State of Florida Department of
Environmental Protection

ENTERED this 30th day of May, 1995 in TAMPA, FLORIDA.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Helene Stanley 5-30-95
Clerk Date

c: Citrus County PHU

Attachments

DOCKET 950495-WS
EXHIBIT NO. 182
CASE NO. 96-04227

DGM-1
Ex 182

Read
dE

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

April 25, 1996
Pasco County

Southern States Utilities
1000 Color Place
Apoka, FL 32703

Att: Mr. Mike Sheehan
Environmental Manager

Re: Palm Terrace Gardens WWTP
Permit No. DO51-150578
Letter dated March 29, 1996

Dear Mr. Sheehan:

The above-referenced sewage treatment plant was inspected on April 17, 1996. Based on this inspection and a review of the information on file with the Department, the following items are being brought to your attention:

PERMIT:

1. The permit to operate expires August 18, 1998. An wastewater application to operate the plant, along with the processing fee of $1000 should be submitted 180 days prior to expiration of the permit. [Ref:Rule 62-620.334 (1),Florida Administrative Code, (F.A.C)]

RECORDS AND REPORTS:

2. Monthly Operating Reports show daily pH, flow and chlorine residual readings are being reported as required.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 950495 EXHIBIT NO 182
COMPANY/
WITNESS:
DATE: 4/29/96

3. Monthly Operating Reports indicate three month average daily flows exceeding the capacity of the disposal system to such an extinct that seasonality is exhibited. These flows occurred during the 3 months ending August 1996, February 1995 January 1995, and December 1994. Although you are permitted on an annual basis, the permittee is required to establish the design flow in a time frame that reflects seasonal variations in flow [Ref:Rule 62-600.400(3)(a),F.A.C.]. During the next permitting cycle you should be prepared to demonstrate that seasonal flow will not exceed the capacity of your disposal system.

4. Record keeping is inadequate. Records should be well organized and standardized. Bound books were found, but the daily log for Total Chlorine Residual was inadequate. The operator was not following the procedure as prescribed in Standard Methods. The DR100 had not been calibrated since 2/22/96. Report of daily results reported are invalid until the proper procedure is in place that will assure the Department of accurate results and a SOP is provided to this Department. [Ref;Rule 62-601.400(1),F.A.C]

FACILITY SITE REVIEW:

5. The Reduced Pressure Zone(RPZ) valve requires a certification test annually, by a certified backflow technician. Please provide a record of this test being completed in the past 12 months as no record could be found.

FLOW MEASUREMENT:

6. The strip chart of the flow meter is not functional. This is an abnormal event which must be reported within 24 hours. The operator was unaware of the problem and had not examined the recording device within the last 24 hours. Please identify the operating procedure to be followed by the operator by reference to your written SOP in the operating manual. [Ref:Rule 62-600.750(1) F.A.C.

7. Please provide a copy of the calibration report for the flow meter. The meter must be calibrated annually by a professional.

OPERATION AND MAINTENANCE:

CLARIFIER:

8. Basketball size pop ups where found on the top of clarifier indicating inadequate oxygen in the blanket or some other cause not identified. Please indicate by copy of the operations manual the method or operational procedure to prevent denitrification in the clarifier hopper.

DISPOSAL

9. An emergency overflow device is not in place as required. It should be placed one foot below the top of the berm at its lowest point. [Ref:Rule 62-610.516,F.A.C.]

10. The dual pond system is not used properly. The pond receiving effluent should be dried and cleaned while effluent is diverted to the other pond. Regular alternate cycles should then be maintained. No method exists for switching ponds. [Ref:Rule 62-610.500(1)(a) F.A.C.].

11. Please indicated the hydraulic rate applied monthly to the sprayfield. On the day of the inspection the sprayfields were dry and the staff gauge in the pond indicated a hydraulic head within three feet of the top of the berm. [Ref:Rule 62-610.515,F.A.C]. Upon application for a new permit, you should present empirical data that supports your permit disposal plan in accordance with the requirements of Rules 62-610.523(2) and (4), F.A.C.

12. During the inspection of the ground water monitoring wells several areas were noted where some corrective action is necessary to protect the well and assure the Department that accurate samples are provided.
    a. The new wells were not labeled and we cannot identify particular problems with the associated well.
    b. All wells contained a sampling device which could contribute to erroneous data. Please review your ground water monitoring plan and quality assurance plan and follow the guidance found in Chapter 62-160, Quality Assurance, and Department Standard Operating Procedures for Laboratory and Sample Collection Activities. (DER-QA-001/92)
    c. All well casings need to be capped to prevent access by small animals

The type inspection conducted was a Compliance Evaluation and the overall rating of the facility was UNSATISFACTORY.

As the permittee, you are hereby requested to respond to this letter with the plans you have made to correct this situation. You may consult with the operator on proposals for corrective action. This response should be in writing and within twenty (20) days from receipt of this letter. Please indicate a time frame for compliance as the Department plans a follow-up verification inspection.

Please direct any questions to the undersigned at (813) 744-6100, extension 371.

Sincerely,

David G. MacColeman
Environmental Supervisor
Compliance and Enforcement
Domestic Wastewater Section

cc: Pasco County Public Health Unit
PSC, Tallahassee
Bob Crouch, Eng. Sup.
Fax Maggie O'Sullivan

DGM/dgm

DOCKET 950495-WS
EXHIBIT NO. 183
CASE NO. 96-04227

APPENDIX B

TESTIFYING EXPERIENCE OF JAMES A. ROTHSCHILD
THROUGH DECEMBER 31, 1995

ALABAMA

Continental Telephone of the South; Docket No. 17968, Rate of Return, January, 1981

ARIZONA

Southwest Gas Corporation; Rate of Return. Docket No. U-1551-92-253, March, 1993

Sun City West Utilities; Accounting, January, 1985

CONNECTICUT

Connecticut American Water Company; Docket No. 800614, Rate of Return, September, 1980

Connecticut Light & Power Company; Docket No. 85-10-22, Accounting and Rate of Return, February, 1986

Connecticut Light & Power Company; Docket No. 88-04-28, Gas Divestiture, August, 1988

Connecticut Natural Gas; Docket No. 780812, Accounting and Rate of Return, March, 1979

Connecticut Natural Gas; Docket No. 830101, Rate of Return, March, 1983

Connecticut Natural Gas; Docket No. 87-01-03, Rate of Return, March, 1987

Connecticut Natural Gas, Docket No. 95-02-07, Rate of Return, June, 1995

United Illuminating Company; Docket No. 89-08-11:ES:BBM, Financial Integrity and Financial Projections, November, 1989.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 950495-WS EXHIBIT NO. 183
COMPANY:
WITNESS: Rothschild
DATE: 4-29-97

DELAWARE

Artesian Water Company, Inc.; Rate of Return, December, 1986

Artesian Water Company, Inc.; Docket No. 87-3, Rate of Return, August, 1987

Diamond State Telephone Company; Docket No. 82-32, Rate of Return, November, 1982

Diamond State Telephone Company; Docket No. 83-12, Rate of Return, October, 1983

Wilmington Suburban Water Company; Rate of Return Report, September, 1986

Wilmington Suburban Water Company; Docket No. 86-25, Rate of Return, February, 1987

FEDERAL ENERGY REGULATORY COMMISSION (FERC)

Maine Yankee Atomic Power Company, Docket No. EL93-22-000, Cost of Capital, July, 1993

New England Power Company; CWIP, February, 1984. Rate of return.

New England Power Company; Docket No.ER88-630-000 & Docket No. ER88-631-000, Rate of Return, April, 1989

New England Power Company; Docket Nos. ER89-582-000 and ER89-596-000, Rate of Return, January, 1990

New England Power Company: Docket Nos. ER91-565-000, ER91-566-000 , FASB 106, March, 1992. Rate of Return.

Philadelphia Electric Company - Conowingo; Docket No. EL-80-557/588, July, 1983. Rate of Return.

Ocean States Power Company, Ocean States II Power Company, Docket No. ER94-998-000 and ER94-999-000, Rate of Return, July, 1994.

Ocean States Power Company, Ocean States II Power Company, Docket No ER 95-533-001 and Docket No. ER-530-001, Rate of Return, June, 1995 and again in October, 1995.

Southern Natural Gas, Docket No. RP93-15-000. Rate of Return, August, 1993, and revised testimony December, 1994.

Transco, Docket No. RP95-197-000. Phase I, August, 1995. Rate of Return.

FLORIDA

Alltel of Florida; Docket No. 850064-TL, Accounting, September, 1985

Florida Power & Light Company; Docket No. 810002-EU, Rate of Return, July, 1981

Florida Power & Light Company; Docket No. 82007-EU, Rate of Return, June, 1982

Florida Power & Light Company; Docket No. 830465-EI, Rate of Return and CWIP, March, 1984

Florida Power Corporation; Docket No. 830470-EI, Rate Phase-In, June, 1984

Florida Power Corp.; Rate of Return, August, 1986

Florida Power Corp.; Docket No. 870220-EI, Rate of Return, October, 1987

GTE Florida, Inc.; Docket No. 890216-TL, Rate of Return, July, 1989

Gulf Power Company; Docket No. 810136-EU, Rate of Return, October, 1981

Gulf Power Company; Docket No. 840086-EI, Rate of Return, August, 1984

Gulf Power Company; Docket No. 881167-EI, Rate of Return, 1989

Gulf Power Company; Docket No. 891345-EI, Rate of Return, 1990

Rolling Oaks Utilities, Inc.; Docket No. 850941-WS, Accounting, Octobe., 1986

Southern Bell Telephone Company; Docket No. 880069-TL, Rate of Return, January, 1992

Southern Bell Telephone Company, Docket No. 920260-TL, Rate of Return, November, 1992

Southern Bell Telephone Company, Docket No. 90260-TL, Rate of Return, November, 1993

Tampa Electric Company; Docket No. 820007-EU, Rate of Return, June, 1982

Tampa Electric Company; Docket No. 830012-EU, Rate of Return, June, 1983

United Telephone of Florida; Docket No. 891239-TL, Rate of Return, November, 1989

United Telephone of Florida; Docket No. 891239-TL, Rate of Return, August, 1990

Water and Sewer Utilities, Docket No 880006-WS, Rate of Return, February, 1988.

GEORGIA

Georgia Power Company; Docket No. 3397-U, Accounting, July, 1983

ILLINOIS

Central Illinois Public Service Company; ICC Docket No. 86-0256, Financial and Rate of Return, October, 1986.

Central Telephone Company of Illinois, ICC Docket No. 93-0252, Rate of Return, October, 1993.

Commonwealth Edison Company; Docket No. 85CH10970, Financial Testimony, May, 1986.

Commonwealth Edison Company; Docket No. 86-0249, Financial Testimony, October, 1986.

Commonwealth Edison Company; ICC Docket No. 87-0057, Rate of Return and Income Taxes, April 3, 1987.

Commonwealth Edison Company; ICC Docket No. 87-0043, Financial Testimony, April 27, 1987.

Commonwealth Edison Company; ICC Docket Nos. 87-0169, 87-0427,88-0189,880219,88-0253 on Remand, Financial Planning Testimony, August, 1990.

Commonwealth Edison Company; ICC Docket Nos. 91-747 and 91-748; Financial Affidavit, March, 1991.

Commonwealth Edison Company; Financial Affidavit, December, 1991.

Commonwealth Edison Company, ICC Docket No. 87-0427, Et. Al., 90-0169 (on Second Remand), Financial Testimony, August, 1992.

GTE North, ICC Docket 93-0301/94-0041. Cost of Capital, April, 1994

Illinois Power Company, Docket No. 92-0404, Creation of Subsidiary, April, 1993

Illinois Bell Telephone Company, Dockets No. ICC 92-0448 and ICC _____, Rate of Return, July, 1993

Northern Illinois Gas Company; Financial Affidavit, February, 1987.

Northern Illinois Gas Company; Docket No. 87-0032, Cost of Capital and Accounting Issues. June, 1987.

Peoples Gas Light and Coke Company; Docket No. 90-0007, Accounting Issues, May, 1990.

KENTUCKY

Kentucky Power Company; Case No. 8429, Rate of Return, April, 1982.

Kentucky Power Company; Case No. 8734, Rate of Return and CWIP, June, 1983.

Kentucky Power Company; Case No. 9061, Rate of Return and Rate Base Issues, September, 1984.

West Kentucky Gas Company, Case No. 8227, Rate of Return, August, 1981.

MAINE

Bangor Hydro-Electric Company; Docket No. 81-136. Rate of Return. January, 1982.

Bangor Hydro-Electric Company; Docket No. 93-62, Rate of Return, August, 1993

Maine Public Service Company; Docket No. 90-281, Accounting and Rate of Return, April, 1991.

MARYLAND

C & P Telephone Company; Case No. 7591, Fair Value, December, 1981

MASSACHUSETTS

Boston Edison Company; Docket No. DPU 906. Rate of Return, December, 1981

Fitchburg Gas & Electric; Accounting and Finance, October, 1984

Southbridge Water Company: M.D.P.U., Rate of Return, September, 1982

MINNESOTA

Minnesota Power & Light Company; Docket No. EO15/GR-80-76, Rate of Return, July, 1980

NEW JERSEY

Atlantic City Sewage; Docket No. 774-315, Rate of Return, May, 1977

Atlantic City Electric Company, Docket Nos. ER 8809 1053 and ER 8809 1054, Rate of Return, April, 1990

Elizabethtown Gas Company. BRC Docket No. GM93090390. Evaluation of proposed merger with Pennsylvania & Southern Gas Co. April. 1994

Elizabethtown Water Company; Docket No. 781-6,Accounting, April, 1978

Elizabethtown Water Company; Docket No. 802-76, Rate of Return, January, 1979

Elizabethtown Water Company; Docket No. PUC 04416-90, BPU Docket No. WR90050497J, Rate of Return and Financial Integrity, November, 1990.

Elizabethtown Water Company; Docket No.WR 9108 1293J, and PUC 08057-91N, Rate of Return and Financial Integrity, January, 1992.

Elizabethtown Water Company, Docket No. WR 92070774J, and PUC 06173-92N, Rate of Return and Financial Integrity, January, 1993.

Elizabethtown Water Company, Docket No. BRC WR93010007, OAL No. PUC 2905-93, Regulatory treatement of CWIP. May, 1993.

Essex County Transfer Stations; OAL Docket PUC 03173-88, BPU Docket Nos. SE 87070552 and SE 87070566, Rate of Return, October, 1989.

Hackensack Water Company; Docket No. 776-455, October, 1977 and Accounting, February, 1979

Hackensack Water Company; Docket No. 787-847, Accounting and Interim Rate Relief, September, 1978

Hackensack Water Company; AFUDC & CWIP, June, 1979

Hackensack Water Company; Docket No. 804-275, Rate of Return, September, 1980

Hackensack Water Company; Docket No. 8011-870, CWIP, January, 1981

Middlesex Water Company; Docket No. 793-254, Tariff Design, September, 1978

Middlesex Water Company; Docket No. 793-269, Rate of Return, June, 1979

Middlesex Water Company; Docket No. WR890302266-J, Accounting and Revenue Forecasting, July, 1989

Middlesex Water Company; Docket No. WR90080884-J, Accounting, Revenue Foresasting, and Rate of Return, February, 1991

Middlesex Water Company, Docket No. WR92070774-J, Rate of Return, January, 1993

Mount Holly Water Company; Docket No. 805-314, Rate of Return, August, 1980

National Association of Water Companies; Tariff Design, 1977

New Jsersy American Water Compay, BPU Docket No. WR9504, Rate of Return, September, 1995

New Jersey Bell Telephone; Docket No. 7711-1047, Tariff Design, September, 1978

New Jersey Land Title Insurance Companies, Rate of Return and Accounting, August and November, 1985

New Jersey Natural Gas; Docket No. 7812-1681, Rate of Return, April, 1979

New Jersey Water Supply Authority, Ratemaking Issues, February, 1995

Nuclear Performance Standards; BPU Docket No. EX89080719, Nuclear Performance Standards policy testimony.

Rockland Electric Company; Docket No. 795-413, Rate of Return, October, 1979

South Jersey Gas Company; Docket No. 769-988, Accounting, February, 1977

South Jersey Gas Company, BRC Docket No. GU94010002, June, 1994

United Artists Cablevision; Docket No. CTV-9924- 83, Rate of Return, April, 1984

West Keansburg Water Company; Docket No. 838-737, Rate of Return, December, 1983

NEW YORK

Consolidated Edison Company; Case No.27353, Accounting and Rate of Return, October, 1978

Consolidated Edison Company; Case No. 27744, Accounting and Rate of Return, August 1980

Generic Financing Case for Electric & Gas Companies; Case No. 27679, May, 1981

Long Island Lighting Company; Case No. 27136, Accounting and Rate of Return, June, 1977

Long Island Lighting Company; Case No. 27774, Rate of Return, November, 1980

Long Island Lighting Company; Case No. 28176 and 28177, Rate of Return and Revenue Forecasting, June, 1982

Long Island Lighting Company, Case No. 28553, Rate of Return and Finance, March, 1984

Long Island Lighting Company, Case No. 93-E-1123, Rate of Return and Finance, May, 1994

New York Telephone, Case No. 27469, April, 1979

New York Telephone, Case No. 27710, Accounting, September, 1981

OHIO

Columbia Gas Company of Ohio; Case No. 77-1428-GA-AIR, March, 1979

Columbia Gas Company of Ohio; Case No. 78-1118-GA-AIR, Accounting and Rate of Return, May, 1979

Ohio Utilities Company; Case No. 78-1421-WS-AIR, Rate of Return, September, 1979

OKLAHOMA

Oklahoma Natural Gas Company, Case PUD No. 94000047, Rate of Return, May, 1995

PENNSYLVANIA

Allied Gas, Et. Al., Docket No. R-932952, Rate of Return, May, 1994

ATTCOM - Pennsylvania; Docket No. P-830452, Rate of Return, April, 1984

Bethel and Mt. Aetna Telephone Company; Docket No. LR-770090452, Accounting and Rate of Return, January, 1978

Big Run Telephone Company; Docket No. R-79100968. Accounting and Rate of Return, November, 1980.

Bloomsburg Water Company; Docket Nos. R-912064 and R-912064C001-C003, Rate of Return, December, 1991.

Citizens Utilities Water Company of Pennsylvania and Citizens Utilities Home Water Company; Docket No. R-901663 and R-901664, Rate of Return, September, 1990

Citizens Utilities Water Company of Pennsylvania, Docket No. R-00953300, Rate of Return, September, 1995

City of Bethlehem, Bureau of Water, Docket No. R-943124, Rate of Return, October, 1994

Columbia Gas of Pennsylvania; Docket No. R-78120724, Rate of Return, May, 1979

Dallas Water Co., Harvey's Lake Water Co. Noxen Water Co., Inc. & Shavertown Water Co. Inc., Docket Nos R-922326, R-922327, R-922328, R-922329, Rate of Return, September, 1992

Dauphin Consolidated Water Company; Docket No. R-780-50616, Rate of Return, August, 1978

Dauphin Consolidated Water Company; Docket No. R-860350, Rate of Return, July, 1986

Dauphin Consolidated Water Company; Docket No. R-912000, Rate of Return, September, 1991

Duquesne Light Company; Docket No. RID-373, Accounting and Rate of Return.

Duquesne Light Company; Docket No. R-80011069, Accounting and Rate of Return, June, 1979

Duquesne Light Company; Docket No. R-821945, Rate of Return, August, 1982

Duquesne Light Company; Docket No. R-850021, Rate of Return, August, 1985

Equitable Gas Company; Docket No. R-780040598, Rate of Return, September, 1978

General Telephone Company of Pennsylvania; Docket No. R-811512, Rate of Return

Mechanicsburg Water Company; Docket No. R-911946; Rate of Return, July, 1991

Mechanicaburg Water Company, Docket No. R-922502, Rate of Return, February, 1993

Metropolitan Edison and Pennsylvania Electric Company; Rate of Return, December, 1980

National Fuel Gas Company; Docket No. R-77110514, Rate of Return, September, 1978

National Fuel Gas Company. Docket No. R-953299, Rate of Return, June, 1995

North Penn Gas Company, Docket No. R-922276, Rate of Return, September, 1992

North Penn Gas Company, Docket No. R-00943245, Rate of Return, May, 1995

Pennsylvania American Water Company, Docket R-922428, Rate of Return, October, 1992

Pennsylvania Electric Company; Rate of Return, September, 1980

Pennsylvania Gas & Water Company, Docket No. R-80071265, Accounting and Rate of Return

Pennsylvania Gas & Water Company; Docket No. R-78040597, Rate of Return, August, 1978

Pennsylvania Gas& Water Company; Docket No. R-911966; Rate of Return, August, 1991

Pennsylvania Gas & Water Company, Docket No. R-922404; Rate of Return, October, 1992

Pennsylvania Gas& Water Company; Docket No. R-922482; Rate of Return, January, 1993

Pennsylvania Gas& Water Company; Docket No. R-932667; Rate of Return, July, 1993

Pennsylvania Power Company; Docket No. R-78040599, Accounting and Rate of Return, May, 1978

Pennsylvania Power Company; Docket No. R-811510, Accounting, August, 1981

Pennsylvania Power Company; Case No. 821918, Rate of Return, July, 1982

Pennsylvania Power & Light Company; Docket No. R-80031114, Accounting and Rate of Return

Pennsylvania Power & Light Company; Docket No. R-822169, Rate of Return, March, 1983

Peoples Natural Gas Company; Docket No. R-78010545, Rate of Return, August, 1978

Philadelphia Electric Company; Docket No. R-850152, Rate of Return, January, 1986

Philadelphia Suburban Water Company; Docket No. R-79040824, Rate of Return, September, 1979

Philadelphia Suburban Water Company; Docket No. R-842592, Rate of Return, July, 1984

Philadelphia Suburban Water Company; Docket No. R-911892, Rate of Return, May, 1991

Philadelphia Suburban Water Company, Docket No. R-00922476, Rate of Return, March, 1993

Philadelphia Suburban Water Company, Docket No. R-932868, Rate of Return, April, 1994

Philadelphia Suburban Water Company, Docket No. R-00953343, Rate of Return, August, 1995.

Roaring Creek Water Company, Docket No. R-911963, Rate of Return, August, 1991

Roaring Creek Water Company, Docket No. R-00932665, Rate of Return, September, 1993

Sewer Authority of the City of Scranton: Financial Testimony, March, 1991

UGI Luzerne Electric; Docket No. R-78030572, Accounting and Rate of Return, October, 1978

West Penn Power, Docket No. R-78100685, July, 1979

West Penn Power; Docket No. R-80021082, Accounting and Rate of Return

Williamsport vs. Borough of S. Williamsport re Sewage Rate Dispute

York Water Company, Docket No. R-850268, Rate of Return, June, 1986

York Water Company, Docket No. R-922168, Rate of Return, June, 1992

RHODE ISLAND

Blackstone Valley Electric Company; Rate of Return, February, 1980

Blackstone Valley Electric Company; Docket No. 1605, Rate of Return, February, 1982

Blackstone Valley Electric Company, Docket No. 2016, Rate of Return, October, 1991

Block Island Power Company, Docket No. 1998, Interim Relief, Oral testimony only, March, 1991, Permanent relief accounting testimony , August, 1991

Bristol & Warren Gas Company; Docket No. 1395, Rate of Return, February, 1980

Bristol & Warren Gas Company; Docket No. 1395R, Rate of Return, June, 1982

FAS 106 Generic Hearing: Docket No. 2045, Financial Testimony, July, 1992

Narragansett Electric Corporation; Docket No. 1591, Accounting, November, 1981

Narragansett Electric Corporation; Docket No. 1719, Rate of Return, December, 1983

Narragansett Electric Corporation; Docket No. 1938, Rate of Return, October, 1989.

Narraganestt Electric Corporation; Docket No. 1976, Rate of Return, October, 1990

Newport Electric Corporation; Docket No. 1410, Accounting, July, 1979

Newport Electric Corporation: Docket No. 1510, Rate of Return

Newport Electric Corporation: Docket No. 1801, Rate of Return, June, 1985

Newport Electric Corporation; Docket 2036, Rate of Return, April, 1992

Providence Gas Company; Docket No. 1971, Rate of Return, October, 1990

Providence Gas Company, Docket No. 2286, Rate of Return, May, 1995

South County Gas Company, Docket No. 1854, Rate of Return, December, 1986

Valley Gas and Bristol & Warren Gas Co., Docket No. 2276, April, 1995

Wakefield Water Company, Docket No. 1734, Rate of Return, April, 1984

SOUTH CAROLINA

Small Power Producers & Cogeneration Facilities; Docket No. 80-251-E, Cogeneration Rates, August, 1984

South Carolina Electric & Gas Company; Docket No. 79-196E, 79-197-G, Accounting, November, 1979

VERMONT

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OTHER

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Report on the Valuation of Nemours Corporation, filed on behalf of IRS, October, 1983 (Submitted to Tax Court)

OCOE

Sch. JAR 1

Overall Summary of Cost of Equity Recommendation

	Cost of Equity Recommendation	Source
Water Companies	9.85%	Sch. JAR 2, P. 1
Gas Distribution Companies	10.35%	Sch. JAR 2, P. 2
Average of Gas and Water	**10.10%**	

Water Utilities
COST OF EQUITY SUMMARY

	Based Upon Average for Year nded12/31//95Stock Prices		Based Upon Stock Prices on 12/31/95	
Simplified DCF, or D/P + g Results	9.52%	[A]	9.25%	[A]
Complex DCF, or two-stage DCF results	10.59%	[B]	10.21%	[C]
Risk Premium			9.76%	[D]
CAPM			8.12%	[E]

Recommended Equity Cost Rate	9.75%
Capital Structure Risk Adjustment [F]	0.10%
Cost of equity net of tax effect	9.85%

Source:

[A] Sch. JAR 4,P. 1
[B] Sch. JAR 5, P 1
[C] Sch. JAR 5, P 2
[D] Sch. JAR 8, P. 1
[E] Sch. JAR 9, P. 1
[F] Based upon difference between company requiested capital structure and industry average capital strucutre as shown on Sch. JAR 11, P. 1.
Cost difference due to capital structure change is based upon results of analysis as shown on Sch. JAR 12, which indicates a cost of equity change of about 0.035% for each 1% change in the level of

NATURAL GAS COMPANIES
COST OF EQUITY SUMMARY

	Based Upon Average for Year Ended 12/31/95 Stock Prices		Based Upon Stock Prices on 12/31/95	
Simplified DCF, or D/P + g Results	9.95%	[A]	9.77%	[A]
Complex DCF, or two-stage DCF results	10.72%	[B]	10.29%	[C]
Risk Premium Result			10.17%	[D]
CAPM Result			7.67%	[E]

Equity Cost rate Using Average of Comparative Group Capital Structure	10.00%
Estimated Adjustment for Capital Structure Risk Change [F]	0.35%
Recommended Equity Cost Rate	10.35%

Source:

[A] Sch. JAR 4, P 2
[B] Sch. JAR 5, P. 3
[C] Sch. JAR 5, P. 4
[D] Sch. JAR 8, P. 2
[F] Based upon difference between company requiested capital structure and industry average capital strucutre as shown on Sch. JAR 11, P. 2.
Cost difference due to capital structure change is based upon results of analysis as shown on Sch. JAR 12, which indicates a cost of equity change of about 0.035% for each 1% change in the level of common equity in the capital structure.

Sch. JAR 3

FINANCIAL DATA ON
MINNESOTA POWER & LIGHT CO.

	1988	1989	1990	1991	1992	1993	1994	YTD Oct-95	AT Oct-95
Market Price- High	$26.50	$27.60	$27.40	$32.50	$35.00	$36.50	$33.00	$28.60	
Market Price- Low	$21.00	$22.90	$22.30	$26.00	$29.60	$30.00	$24.80	$24.30	
Average			$24.85	$29.25	$32.30	$33.25	$28.90	$26.45	$29.00
Book Value , Y/E	$16.86	$17.46	$16.36	$16.02	$16.58	$18.03	$17.98		
Book Value, Avg.		$17.16	$16.91	$16.19	$16.30	$17.31	$18.01	$18.35	$18.35 [A]
Earnings Per Share	$2.35	$2.01	$2.00	$2.19	$2.31	$2.20	$1.64		
Dividends Per Share	$1.72	$1.78	$1.86	$1.90	$1.94	$1.98	$2.02	$2.04	$2.04
Dividend Yield			7.48%	6.50%	6.01%	5.95%	6.99%	7.71%	7.03%
Return on Equity		11.71%	11.83%	13.53%	14.17%	12.71%	9.11%		
Market-to-Book			1.47	1.81	1.98	1.92	1.61	1.44	1.58

Source: Value Line.
Value Line future expected return on book equity = 14.50%

[A] Value Line Est. for 12/95

DCF

Value Line Water Companies **Sch. JAR 4,P. 1**
DISCOUNTED CASH FLOW (DCF) INDICATED COST OF EQUITY

		BASED ON AVERAGE MARKET PRICE FOR Year Ending 12/31/95	BASED UPON MARKET PRICE AS OF 12/31/95
1 Dividend Yield On Market Price	[B]	6.21%	5.95%
2 Retention Ratio:			
a) Market-to-book	[B]	1.38	1.46
b) Div. Yld on Book	[C]	8.56%	8.68%
c) Return on Equity	[A]	11.25%	11.25%
d) Retention Rate	[D]	23.88%	22.82%
3 Reinvestment Growth	[E]	2.69%	2.57%
4 New Financing Growth	[F]	0.52%	0.63%
5 Total Estimate of Investor Anticipated Growth	[G]	3.21%	3.20%
6 Increment to Dividend Yield for Growth to Next Year	[H]	0.10%	0.10%
7 **Indicated Cost of Equity**	[I]	**9.52%**	**9.25%**

Some of the Considerations for determining Future Expected Return on Equity:

			Source:
[A]	Value Line Expectation	11.75%	Sch. JAR 6, P. 1
	Expectation Derived from Zack's Consensus Growth Rate	11.39%	Sch. JAR 6, P. 2
	Earned Return on Equity in 1995	10.15%	Sch. JAR 6, P. 1
	Earned Return on Equity in 1994	10.47%	Sch. JAR 6, P. 2

For recommended expectation, see text.

Other Sources:

[B] Sch. JAR 6, P. 1 and
Sch. JAR 6, P. 2
[C] Line 1 x Line 2a
[D] 1- Line 2b/Line 2c
[E] Line 2c x Line 2d
[F] Estimated impact of dilution or premium due to sale of equity at other than book value. Computed based upon mathematically derived result based upon the historical external financing rate.
[M/B X (Ext. Fin Rate+1]/(M/B + Ext. Fin. Rate-1) Ext. Fin. rate used = 1.40% [J]
[G] Line 3 + Line 4
[H] Line 1 x one-half of line 5
[I] Line 1 + Line 5 + Line 6
[J] Sch. JAR 10, P. 1

VALUE LINE GAS COMPANIES **Sch. JAR 4, P 2**
DISCOUNTED CASH FLOW (DCF) INDICATED COST OF EQUITY

			BASED ON AVERAGE MARKET PRICE FOR Dec. 1995 YTD	BASED UPON MARKET PRICE AS OF 12/31/95
1	Dividend Yield On Market Price	[B]	5.80%	5.30%
2	Retention Ratio:			
	a) Market-to-book	[B]	1.58	1.72
	b) Div. Yld on Book	[C]	9.15%	9.13%
	c) Return on Equity	[A]	12.00%	12.00%
	d) Retention Rate	[D]	23.71%	23.90%
3	Reinvestment Growth	[E]	2.85%	2.87%
4	New Financing Growth	[F]	1.19%	1.49%
5	Total Estimate of Investor Anticipated Growth	[G]	4.04%	4.35%
6	Increment to Dividend Yield for Growth to Next Year	[H]	0.12%	0.12%
7	**Indicated Cost of Equity**	[I]	**9.95%**	**9.77%**

Some of the Considerations for determining Future Expected Return on Equity:

			Source:
[A]	Value Line Expectation	12.23%	Sch. JAR 7, P. 1
	Expectation Derived from Zack's Consensus Growth Rate	12.39%	Sch. JAR 7, P. 2
	Earned Return on Equity in 1995	10.57%	Sch. JAR 7, P. 2
	Earned Return on Equity in 1994	11.01%	Sch. JAR 7, P. 2

For recommended expectation, see text

Other Sources:

[B] Sch. JAR 7, P. 1 and
Sch. JAR 7, P. 2
[C] Line 1 x Line 2a
[D] 1- Line 2b/Line 2c
[E] Line 2c x Line 2d
[F] Estimated impact of dilution or premium due to sale of equity at other than book value. Computed based upon mathematically derived result based upon the historical external financing rate.
[M/B X (Ext. Fin Rate+1)/(M/B + Ext. Fin. Rate-1) Ext. Fin. rate used = 2.10% [J]
[G] Line 3 + Line 4
[H] Line 1 x one-half of line 5 2.10%
[I] Line 1 + Line 5 + Line 6
[J] Sch. JAR 10, P. 2

Occ

Sch. JAR 6, P 1

VALUE LINE WATER COMPANIES
FULL DCF METHOD
Based on Market Price for Year Ended 12/31/95

	Year	[1] Year End Book	[2] Retention Rate	[3] Dividend	[4] Earnings Per Share	[5] Retained Earnings Per Share	[6] External Financing Rate	[7] Increment to book from Ext. Fin.	[8] Total Increment to Book	[9] Market Price	[10] Mkt to Book	[11] Expect. Ret. on Equity	[12] Cash Fl. from Stock Trans.	[13] Cash Fl. from Div.	[14] Total Cash Flow
		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J] M/B Chane 0.00	[K]	[L]	[M]	[N]
	1994	$13.96		$0.00						$19.24	1.38				$0.00
	1995	$14.49	19.31%	$1.37	$1.69	$0.33			$0.33	$19.97	1.38	11.88%	($19.97)		($19.97)
	1996	$17.30	21.94%	$1.41	$1.80	$0.40			$0.40	$23.84	1.38	11.32%		$1.41	$1.41
First Stage	1997	$17.72	23.35%	$1.47	$1.92	$0.45			$0.45	$24.42	1.38	10.98%		$1.47	$1.47
	1998	$18.14	24.59%	$1.54	$2.04	$0.50			$0.50	$25.00	1.38	11.40%		$1.54	$1.54
	1999	$18.58	25.69%	$1.61	$2.17	$0.56			$0.56	$25.58	1.38	11.81%		$1.61	$1.61
	2000	$19.22	25.69%	$1.58	$2.13	$0.55	1.10%	$0.08	$0.62	$26.50	1.38	11.25%		$1.58	$1.56
	2001	$19.91	25.69%	$1.64	$2.20	$0.57	1.10%	$0.08	$0.65	$27.45	1.38	11.25%		$1.64	$1.64
	2002	$20.63	25.69%	$1.69	$2.28	$0.59	1.10%	$0.08	$0.67	$28.43	1.38	11.25%		$1.69	$1.69
	2003	$21.37	25.69%	$1.76	$2.36	$0.61	1.10%	$0.09	$0.69	$29.45	1.38	11.25%		$1.76	$1.76
	2004	$22.14	25.69%	$1.82	$2.45	$0.63	1.10%	$0.09	$0.72	$30.51	1.38	11.25%		$1.82	$1.82
	2005	$22.93	25.69%	$1.88	$2.54	$0.65	1.10%	$0.09	$0.74	$31.61	1.38	11.25%		$1.88	$1.88
	2006	$23.76	25.69%	$1.95	$2.63	$0.67	1.10%	$0.10	$0.77	$32.74	1.38	11.25%		$1.95	$1.95
	2007	$24.61	25.69%	$2.02	$2.72	$0.70	1.10%	$0.10	$0.80	$33.92	1.38	11.25%		$2.02	$2.02
	2008	$25.49	25.69%	$2.09	$2.82	$0.72	1.10%	$0.10	$0.83	$35.13	1.38	11.25%		$2.09	$2.09
	2009	$26.41	25.69%	$2.17	$2.92	$0.75	1.10%	$0.11	$0.86	$36.40	1.38	11.25%		$2.17	$2.17
	2010	$27.36	25.69%	$2.25	$3.02	$0.78	1.10%	$0.11	$0.89	$37.70	1.38	11.25%		$2.25	$2.25
	2011	$28.34	25.69%	$2.33	$3.13	$0.80	1.10%	$0.11	$0.92	$39.06	1.38	11.25%		$2.33	$2.33
	2012	$29.35	25.69%	$2.41	$3.25	$0.83	1.10%	$0.12	$0.95	$40.46	1.38	11.25%		$2.41	$2.41
	2013	$30.41	25.69%	$2.50	$3.36	$0.86	1.10%	$0.12	$0.99	$41.91	1.38	11.25%		$2.50	$2.50
	2014	$31.50	25.69%	$2.59	$3.48	$0.89	1.10%	$0.13	$1.02	$43.41	1.38	11.25%		$2.59	$2.59
	2015	$32.63	25.69%	$2.68	$3.61	$0.93	1.10%	$0.13	$1.06	$44.97	1.38	11.25%		$2.68	$2.68
Second Stage	2016	$33.80	25.69%	$2.78	$3.74	$0.96	1.10%	$0.14	$1.10	$46.59	1.38	11.25%		$2.78	$2.78
	2017	$35.02	25.69%	$2.88	$3.87	$0.99	1.10%	$0.14	$1.14	$48.26	1.38	11.25%		$2.88	$2.88
	2018	$36.27	25.69%	$2.98	$4.01	$1.03	1.10%	$0.15	$1.18	$49.98	1.38	11.25%		$2.98	$2.98
	2019	$37.58	25.69%	$3.09	$4.15	$1.07	1.10%	$0.15	$1.22	$51.79	1.38	11.25%		$3.09	$3.09
	2020	$38.92	25.69%	$3.20	$4.30	$1.11	1.10%	$0.16	$1.26	$53.65	1.38	11.25%		$3.20	$3.20
	2021	$40.32	25.69%	$3.31	$4.46	$1.15	1.10%	$0.16	$1.31	$55.57	1.38	11.25%		$3.31	$3.31
	2022	$41.77	25.69%	$3.43	$4.62	$1.19	1.10%	$0.17	$1.36	$57.57	1.38	11.25%		$3.43	$3.43
	2023	$43.27	25.69%	$3.55	$4.78	$1.23	1.10%	$0.18	$1.40	$59.64	1.38	11.25%		$3.55	$3.55
	2024	$44.82	25.69%	$3.68	$4.96	$1.27	1.10%	$0.18	$1.45	$61.78	1.38	11.25%		$3.68	$3.68
	2025	$46.43	25.69%	$3.81	$5.13	$1.32	1.10%	$0.19	$1.51	$63.99	1.38	11.25%		$3.81	$3.81
	2026	$48.10	25.69%	$3.95	$5.32	$1.37	1.10%	$0.20	$1.56	$66.29	1.38	11.25%		$3.95	$3.95
	2027	$49.83	25.69%	$4.09	$5.51	$1.42	1.10%	$0.20	$1.62	$68.67	1.38	11.25%		$4.09	$4.09
	2028	$51.61	25.69%	$4.24	$5.71	$1.47	1.10%	$0.21	$1.68	$71.14	1.38	11.25%		$4.24	$4.24
	2029	$53.47	25.69%	$4.39	$5.91	$1.52	1.10%	$0.22	$1.74	$73.69	1.38	11.25%		$4.39	$4.39
	2030	$55.39	25.69%	$4.55	$6.12	$1.57	1.10%	$0.22	$1.80	$76.34	1.38	11.25%		$4.55	$4.55
	2031	$57.38	25.69%	$4.71	$6.34	$1.63	1.10%	$0.23	$1.86	$79.08	1.38	11.25%		$4.71	$4.71
	2032	$59.44	25.69%	$4.88	$6.57	$1.69	1.10%	$0.24	$1.93	$81.92	1.38	11.25%		$4.88	$4.88
	2033	$61.57	25.69%	$5.06	$6.81	$1.75	1.10%	$0.25	$2.00	$84.86	1.38	11.25%		$5.06	$5.06
	2034	$63.78	25.69%	$5.24	$7.05	$1.81	1.10%	$0.26	$2.07	$87.90	1.38	11.25%	$87.90	$5.24	$93.14
												Internal Rate of Return			10.59%

Source:

[A] First Stage is average from Value Line. Second stage is prior years' book plus value from Col [8]
[B] First Stage is (Col. [4]-Col [3])/Col [4]). Second stage is equal to final value of first stage.
[C] First Stage is from Value Line. Second stage is Col. [4] x (1-Col. [2])
[D] First Stage is from Value line. Second stage is average of current and prior year's value from Col. [1] x Col. [11]
[E] Col. [4] - Col. [3]
[F] Sch. JAR 9
[G]
[H] Col. [7] + Col. [8]
[I] Col. [1] x Col. [10]
[J] Sch. JAR 7, P. 1
[K] First stage is Col. [4]/Avg. of Current and prior year's Col. [1]. Second stage is from
[L] - Col. [9] for year of purchase, + Col. [9] for year of sale
[M] Col. [3]
[N] Col. [12] + Col. [13]

Sch. JAR 5, P 2

VALUE LINE WATER COMPANIES
FULL DCF METHOD
Based on Market Price on 12/31/95

	Year	[1] Year End Book	[2] Retention Rate	[3] Dividend	[4] Earnings Per Share	[5] Retained Earnings Per Share	[6] External Financi Rate	[7] Increment to book from Ext. Fin.	[8] Total Increment to Book	[9] Market Price	[10] Mkt to Book	[11] Expect. Ret. on Equity	[12] Cash Fl. from Stock Trans.	[13] Cash Fl. from Div.	[14] Total Cash Flow
		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J] M/B Cha 0 00	[K]	[L]	[M]	[N]
	1994	$13 98								$20 37	1 46				
	1995	$14 49	18 31%	$1 37	$1 89	$0 33			$0 33	$21 14	1 46	11 89%	($21 14)		($21 14)
	1996	$17 30	21 94%	$1 41	$1 80	$0 40			$0 40	$25 24	1 46	11 32%		$1 41	$1 41
First Stage	1997	$17 72	23 35%	$1 47	$1 92	$0 45			$0 45	$25 85	1 46	10 98%		$1 47	$1 47
	1998	$18 14	24 59%	$1 54	$2 04	$0 50			$0 50	$26 46	1 46	11 40%		$1 54	$1 54
	1999	$18 56	25 69%	$1 61	$2 17	$0 56			$0 56	$27 08	1 46	11 81%		$1 61	$1 61
	2000	$19 22	25 69%	$1 58	$2 13	$0 55	1 40%	$0 12	$0 67	$28 05	1 46	11 25%		$1 58	$1 58
	2001	$19 91	25 69%	$1 64	$2 20	$0 57	1 40%	$0 12	$0 69	$29 05	1 46	11 25%		$1 64	$1 64
	2002	$20 63	25 69%	$1 69	$2 28	$0 59	1 40%	$0 13	$0 71	$30 10	1 46	11 25%		$1 69	$1 69
	2003	$21 37	25 69%	$1 76	$2 36	$0 61	1 40%	$0 13	$0 74	$31 18	1 46	11 25%		$1 76	$1 76
	2004	$22 14	25 69%	$1 82	$2 45	$0 63	1 40%	$0 14	$0 77	$32 30	1 46	11 25%		$1 82	$1 82
	2005	$22 93	25 69%	$1 88	$2 54	$0 65	1 40%	$0 14	$0 79	$33 48	1 46	11 25%		$1 88	$1 88
	2006	$23 78	25 69%	$1 95	$2 63	$0 67	1 40%	$0 15	$0 82	$34 68	1 46	11 25%		$1 95	$1 95
	2007	$24 81	25 69%	$2 02	$2 72	$0 70	1 40%	$0 15	$0 85	$35 90	1 46	11 25%		$2 02	$2 02
	2008	$25 49	25 69%	$2 09	$2 82	$0 72	1 40%	$0 16	$0 88	$37 19	1 46	11 25%		$2 09	$2 09
	2009	$26 41	25 69%	$2 17	$2 92	$0 75	1 40%	$0 17	$0 92	$38 53	1 46	11 25%		$2 17	$2 17
	2010	$27 36	25 69%	$2 25	$3 02	$0 78	1 40%	$0 17	$0 95	$39 91	1 46	11 25%		$2 25	$2 25
	2011	$28 34	25 69%	$2 33	$3 13	$0 80	1 40%	$0 18	$0 98	$41 34	1 46	11 25%		$2 33	$2 33
	2012	$29 35	25 69%	$2 41	$3 25	$0 83	1 40%	$0 18	$1 02	$42 83	1 46	11 25%		$2 41	$2 41
	2013	$30 41	25 69%	$2 50	$3 36	$0 86	1 40%	$0 19	$1 05	$44 36	1 46	11 25%		$2 50	$2 50
	2014	$31 50	25 69%	$2 59	$3 48	$0 89	1 40%	$0 20	$1 09	$45 96	1 46	11 25%		$2 59	$2 59
	2015	$32 63	25 69%	$2 68	$3 61	$0 93	1 40%	$0 20	$1 13	$47 61	1 46	11 25%		$2 68	$2 68
Second Stage	2016	$33 80	25 69%	$2 78	$3 74	$0 96	1 40%	$0 21	$1 17	$49 32	1 46	11 25%		$2 78	$2 78
	2017	$35 02	25 69%	$2 88	$3 87	$0 99	1 40%	$0 22	$1 21	$51 09	1 46	11 25%		$2 88	$2 88
	2018	$36 27	25 69%	$2 98	$4 01	$1 03	1 40%	$0 23	$1 26	$52 92	1 46	11 25%		$2 98	$2 98
	2019	$37 58	25 69%	$3 09	$4 15	$1 07	1 40%	$0 23	$1 30	$54 82	1 46	11 25%		$3 09	$3 09
	2020	$38 92	25 69%	$3 20	$4 30	$1 11	1 40%	$0 24	$1 35	$56 79	1 46	11 25%		$3 20	$3 20
	2021	$40 32	25 69%	$3 31	$4 46	$1 15	1 40%	$0 25	$1 40	$58 83	1 46	11 25%		$3 31	$3 31
	2022	$41 77	25 69%	$3 43	$4 62	$1 19	1 40%	$0 26	$1 45	$60 94	1 46	11 25%		$3 43	$3 43
	2023	$43 27	25 69%	$3 55	$4 78	$1 23	1 40%	$0 27	$1 50	$63 13	1 46	11 25%		$3 55	$3 55
	2024	$44 82	25 69%	$3 68	$4 96	$1 27	1 40%	$0 28	$1 55	$65 39	1 46	11 25%		$3 68	$3 68
	2025	$46 43	25 69%	$3 81	$5 13	$1 32	1 40%	$0 29	$1 61	$67 74	1 46	11 25%		$3 81	$3 81
	2026	$48 10	25 69%	$3 95	$5 32	$1 37	1 40%	$0 30	$1 67	$70 17	1 46	11 25%		$3 95	$3 95
	2027	$49 83	25 69%	$4 09	$5 51	$1 42	1 40%	$0 31	$1 73	$72 69	1 46	11 25%		$4 09	$4 09
	2028	$51 61	25 69%	$4 24	$5 71	$1 47	1 40%	$0 32	$1 79	$75 30	1 46	11 25%		$4 24	$4 24
	2029	$53 47	25 69%	$4 39	$5 91	$1 52	1 40%	$0 33	$1 85	$78 01	1 46	11 25%		$4 39	$4 39
	2030	$55 39	25 69%	$4 55	$6 12	$1 57	1 40%	$0 35	$1 92	$80 81	1 46	11 25%		$4 55	$4 55
	2031	$57 38	25 69%	$4 71	$6 34	$1 63	1 40%	$0 36	$1 99	$83 71	1 46	11 25%		$4 71	$4 71
	2032	$59 44	25 69%	$4 88	$6 57	$1 69	1 40%	$0 37	$2 06	$86 71	1 46	11 25%		$4 88	$4 88
	2033	$61 57	25 69%	$5 06	$6 81	$1 75	1 40%	$0 39	$2 13	$89 83	1 46	11 25%		$5 06	$5 06
	2034	$63 78	25 69%	$5 24	$7 05	$1 81	1 40%	$0 40	$2 21	$93 05	1 46	11 25%	$93 05	$5 24	$98 29
												Internal Rate of Return			10 21%

Source:

[A] First Stage is average from Value Line. Second stage is prior years' book plus value from Col [8]
[B] First Stage is (Col [4]-Col [3])/Col [4]) Second stage is equal to final value of first stage
[C] First Stage is from Value Line Second stage is Col [4] x (1-Col [2])
[D] First Stage is from Value line. Second stage is average of current and prior year's value from Col [1] x Col [11]
[E] Col [4] - Col [3]
[F] Sch JAR 9
[G]
[H] Col [7] + Col [8]
[I] Col [1] x Col [10]
[J] Sch JAR 7, P 1
[K] First stage is Col [4]/Avg of Current and prior year's Col [1] Second stage is fr Sch JAR 4, P 1
[L] - Col [9] for year of purchase, + Col. [9] for year of sale.
[M] Col [3]
[N] Col [12] + Col [13]

Dec

Sch. JAR 5, P. 3

VALUE LINE GAS COMPANIES

FULL DCF METHOD

Based on Market Price for Year Ended 12/31/95

	Year	[1] Year End Book	[2] Retention Rate	[3] Dividend	[4] Earnings Per Share	[5] Retained Earnings Per Share	[6] External Financing Rate	[7] Increment to book from Ext. Fin.	[8] Total Increme to Book	[9] Market Price	[10] Mkt to Book	[11] Expect. Ret. on Equity	[12] Cash Fl. from Stock Trans.	[13] Cash Fl. from Div.	[14] Total Cash Flow
		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
											M/B Chane 0 00				
	1994	$13 77		$0 00						$21 74	1 58				$0 00
	1995	$14 08	18 87%	$1 22	$1 47	$0 25			$0 25	$22 23	1 58	10 58%	($22 23)		($22 23)
	1996	$14 64	26 39%	$1 25	$1 69	$0 45			$0 45	$23 11	1 58	11 80%		$1 25	$1 25
First Stage	1997	$15 36	29 30%	$1 29	$1 82	$0 53			$0 53	$24 25	1 58	12 12%		$1 29	$1 29
	1998	$16 08	31 84%	$1 32	$1 94	$0 62			$0 62	$25 36	1 58	12 38%		$1 32	$1 32
	1999	$16 79	34 08%	$1 36	$2 07	$0 70			$0 70	$26 51	1 58	12 58%		$1 36	$1 36
	2000	$17 76	34 08%	$1 37	$2 07	$0 71	2 10%	$0 21	$0 91	$28 04	1 58	12 00%		$1 37	$1 37
	2001	$18 78	34 08%	$1 45	$2 19	$0 75	2 10%	$0 22	$0 97	$29 65	1 58	12 00%		$1 45	$1 45
	2002	$19 86	34 08%	$1 53	$2 32	$0 79	2 10%	$0 23	$1 02	$31 35	1 58	12 00%		$1 53	$1 53
	2003	$21 00	34 08%	$1 62	$2 45	$0 84	2 10%	$0 25	$1 08	$33 16	1 58	12 00%		$1 62	$1 62
	2004	$22 21	34 08%	$1 71	$2 59	$0 88	2 10%	$0 26	$1 14	$35 08	1 58	12 00%		$1 71	$1 71
	2005	$23 48	34 08%	$1 81	$2 74	$0 93	2 10%	$0 27	$1 21	$37 08	1 58	12 00%		$1 81	$1 81
	2006	$24 84	34 08%	$1 81	$2 90	$0 99	2 10%	$0 29	$1 28	$39 21	1 58	12 00%		$1 91	$1 91
	2007	$26 26	34 08%	$2 02	$3 07	$1 04	2 10%	$0 31	$1 35	$41 47	1 58	12 00%		$2 02	$2 02
	2008	$27 77	34 08%	$2 14	$3 24	$1 10	2 10%	$0 32	$1 43	$43 85	1 58	12 00%		$2 14	$2 14
	2009	$29 37	34 08%	$2 26	$3 43	$1 17	2 10%	$0 34	$1 51	$46 37	1 58	12 00%		$2 26	$2 26
	2010	$31 06	34 08%	$2 39	$3 63	$1 24	2 10%	$0 36	$1 60	$49 04	1 58	12 00%		$2 39	$2 39
	2011	$32 84	34 08%	$2 53	$3 83	$1 31	2 10%	$0 38	$1 69	$51 86	1 58	12 00%		$2 53	$2 53
	2012	$34 73	34 08%	$2 67	$4 05	$1 38	2 10%	$0 41	$1 79	$54 84	1 58	12 00%		$2 67	$2 67
	2013	$36 73	34 08%	$2 83	$4 29	$1 46	2 10%	$0 43	$1 89	$57 99	1 58	12 00%		$2 83	$2 83
	2014	$38 84	34 08%	$2 99	$4 53	$1 55	2 10%	$0 45	$2 00	$61 33	1 58	12 00%		$2 99	$2 99
	2015	$41 08	34 08%	$3 16	$4 80	$1 83	2 10%	$0 48	$2 11	$64 85	1 58	12 00%		$3 16	$3 16
Second Stage	2016	$43 44	34 08%	$3 34	$5 07	$1 73	2 10%	$0 51	$2 23	$68 58	1 58	12 00%		$3 34	$3 34
	2017	$45 94	34 08%	$3 54	$5 36	$1 83	2 10%	$0 54	$2 36	$72 52	1 58	12 00%		$3 54	$3 54
	2018	$48 58	34 08%	$3 74	$5 67	$1 93	2 10%	$0 57	$2 50	$76 69	1 58	12 00%		$3 74	$3 74
	2019	$51 37	34 08%	$3 95	$6 00	$2 04	2 10%	$0 60	$2 64	$81 10	1 58	12 00%		$3 95	$3 95
	2020	$54 32	34 08%	$4 18	$6 34	$2 16	2 10%	$0 63	$2 79	$85 77	1 58	12 00%		$4 18	$4 18
	2021	$57 45	34 08%	$4 42	$6 71	$2 29	2 10%	$0 67	$2 96	$90 70	1 58	12 00%		$4 42	$4 42
	2022	$60 75	34 08%	$4 68	$7 09	$2 42	2 10%	$0 71	$3 13	$95 91	1 58	12 00%		$4 68	$4 68
	2023	$64 24	34 08%	$4 94	$7 50	$2 56	2 10%	$0 75	$3 31	$101 43	1 58	12 00%		$4 94	$4 94
	2024	$67 94	34 08%	$5 23	$7 93	$2 70	2 10%	$0 79	$3 50	$107 28	1 58	12 00%		$5 23	$5 23
	2025	$71 84	34 08%	$5 53	$8 39	$2 86	2 10%	$0 84	$3 70	$113 43	1 58	12 00%		$5 53	$5 53
	2026	$75 97	34 08%	$5 85	$8 87	$3 02	2 10%	$0 89	$3 91	$119 95	1 58	12 00%		$5 85	$5 85
	2027	$80 34	34 08%	$6 18	$9 38	$3 20	2 10%	$0 94	$4 13	$126 85	1 58	12 00%		$6 18	$6 18
	2028	$84 96	34 08%	$6 54	$9 92	$3 38	2 10%	$0 99	$4 37	$134 14	1 58	12 00%		$6 54	$6 54
	2029	$89 85	34 08%	$6 91	$10 49	$3 57	2 10%	$1 05	$4 62	$141 85	1 58	12 00%		$6 91	$6 91
	2030	$95 01	34 08%	$7 31	$11 09	$3 78	2 10%	$1 11	$4 89	$150 01	1 58	12 00%		$7 31	$7 31
	2031	$100 48	34 08%	$7 73	$11 73	$4 00	2 10%	$1 17	$5 17	$158 64	1 58	12 00%		$7 73	$7 73
	2032	$106 25	34 08%	$8 18	$12 40	$4 23	2 10%	$1 24	$5 47	$167 78	1 58	12 00%		$8 18	$8 18
	2033	$112 36	34 08%	$8 65	$13 12	$4 47	2 10%	$1 31	$5 78	$177 40	1 58	12 00%		$8 65	$8 65
	2034	$118 82	34 08%	$9 14	$13 87	$4 73	2 10%	$1 39	$6 11	$187 60	1 58	12 00%	$187 60	$9 14	$196 75
												Internal Rate of Return			10 72%

Source:

[A] First Stage is average from Value Line Second stage is prior years' book plus value from Col [8]

[B] First Stage is (Col [4]-Col [3])/Col [4]) Second stage is equal to final value of first stage.

[C] First Stage is from Value Line Second stage is Col [4] x (1-Col [2])

[D] First Stage is from Value line Second stage is average of current and prior year's value from Col [1] x Col. [11]

[E] Col [4] - Col. [3]

[F] Sch JAR 9

[G]

[H] Col [7] + Col [8]

[I] Col [1] x Col [10]

[J] Sch JAR 7, P 1

[K] First stage is Col [4]/Avg of Current and prior year's Col [1]. Second stage is from

[L] - Col. [9] for year of purchase, + Col [9] for year of sale

[M] Col. [3]

[N] Col [12] + Col [13]

VALUE LINE GAS COMPANIES
FULL DCF METHOD
Based on Market Price on 12/31/95

	Year	[1] Year End Book	[2] Retenti Rate	[3] Dividend	[4] Earnings Per Share	[5] Retained Earnings Per Share	[6] External Financing Rate	[7] Increme to book from Ext. Fin.	[8] Total Incremen to Book	[9] Market Price	[10] Mkt to Book	[11] Expect. Ret. on Equity	[12] Cash Fl. from Stock Trans.	[13] Cash Fl. from Div.	[14] Total Cash Flow
		[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J] M/B Change	[K]	[L]	[M]	[N]
	1994	$13.77								$23.73	1.72				
	1995	$14.08	16.87%	$1.22	$1.47	$0.25			$0.25	$24.28	1.72	10.58%	($24.26)		($24.26)
	1996	$14.64	26.39%	$1.25	$1.69	$0.45			$0.45	$25.23	1.72	11.80%		$1.25	$1.25
First Stage	1997	$15.36	29.30%	$1.29	$1.82	$0.53			$0.53	$26.46	1.72	12.12%		$1.29	$1.29
	1998	$16.08	31.84%	$1.32	$1.94	$0.62			$0.62	$27.70	1.72	12.36%		$1.32	$1.32
	1999	$16.79	34.08%	$1.36	$2.07	$0.70			$0.70	$28.93	1.72	12.58%		$1.36	$1.36
	2000	$17.78	34.08%	$1.37	$2.07	$0.71	2.10%	$0.26	$0.97	$30.60	1.72	12.00%		$1.37	$1.37
	2001	$18.78	34.08%	$1.45	$2.19	$0.75	2.10%	$0.27	$1.02	$32.36	1.72	12.00%		$1.45	$1.45
	2002	$19.86	34.08%	$1.53	$2.32	$0.79	2.10%	$0.29	$1.08	$34.22	1.72	12.00%		$1.53	$1.53
	2003	$21.00	34.08%	$1.62	$2.45	$0.84	2.10%	$0.31	$1.14	$36.18	1.72	12.00%		$1.62	$1.62
	2004	*$22.21*	*34.08%*	*$1.71*	$2.59	$0.88	2.10%	$0.32	$1.21	$38.27	1.72	12.00%		$1.71	$1.71
	2005	$23.48	34.08%	$1.81	$2.74	$0.93	2.10%	$0.34	$1.28	$40.47	1.72	12.00%		$1.81	$1.81
	2006	$24.84	34.08%	$1.91	$2.90	$0.99	2.10%	$0.36	$1.35	$42.79	1.72	12.00%		$1.91	$1.91
	2007	$26.26	34.08%	$2.02	$3.07	$1.04	2.10%	$0.38	$1.43	$45.25	1.72	12.00%		$2.02	$2.02
	2008	$27.77	34.08%	$2.14	$3.24	$1.10	2.10%	$0.41	$1.51	$47.85	1.72	12.00%		$2.14	$2.14
	2009	$29.37	34.08%	$2.26	$3.43	$1.17	2.10%	$0.43	$1.60	$50.61	1.72	12.00%		$2.26	$2.26
	2010	$31.06	34.08%	$2.39	$3.63	$1.24	2.10%	$0.45	$1.69	$53.52	1.72	12.00%		$2.39	$2.39
	2011	$32.84	34.08%	$2.53	$3.83	$1.31	2.10%	$0.48	$1.79	$56.59	1.72	12.00%		$2.53	$2.53
	2012	$34.73	34.08%	$2.67	$4.05	$1.38	2.10%	$0.51	$1.89	$59.85	1.72	12.00%		$2.67	$2.67
	2013	$36.73	34.08%	$2.83	$4.29	$1.46	2.10%	$0.54	$2.00	$63.29	1.72	12.00%		$2.83	$2.83
	2014	$38.84	34.08%	$2.99	$4.53	$1.55	2.10%	$0.57	$2.11	$66.93	1.72	12.00%		$2.99	$2.99
	2015	$41.08	34.08%	$3.16	$4.80	$1.63	2.10%	$0.60	$2.23	$70.78	1.72	12.00%		$3.16	$3.16
Second Stage	2016	$43.44	34.08%	$3.34	$5.07	$1.73	2.10%	$0.63	$2.36	$74.85	1.72	12.00%		$3.34	$3.34
	2017	$45.94	34.08%	$3.54	$5.36	$1.83	2.10%	$0.67	$2.50	$79.15	1.72	12.00%		$3.54	$3.54
	2018	$48.58	34.08%	$3.74	$5.67	$1.93	2.10%	$0.71	$2.64	$83.70	1.72	12.00%		$3.74	$3.74
	2019	$51.37	34.08%	$3.95	$6.00	$2.04	2.10%	$0.75	$2.79	$88.51	1.72	12.00%		$3.95	$3.95
	2020	$54.32	34.08%	$4.18	$6.34	$2.16	2.10%	$0.79	$2.95	$93.60	1.72	12.00%		$4.18	$4.18
	2021	$57.45	34.08%	$4.42	$6.71	$2.29	2.10%	$0.84	$3.12	$98.98	1.72	12.00%		$4.42	$4.42
	2022	$60.75	34.08%	$4.68	$7.09	$2.42	2.10%	$0.89	$3.30	$104.68	1.72	12.00%		$4.68	$4.68
	2023	$64.24	34.08%	$4.94	$7.50	$2.56	2.10%	$0.94	$3.49	$110.69	1.72	12.00%		$4.94	$4.94
	2024	$67.94	34.08%	$5.23	$7.93	$2.70	2.10%	$0.99	$3.69	$117.06	1.72	12.00%		$5.23	$5.23
	2025	$71.84	34.08%	$5.53	$8.39	$2.86	2.10%	$1.05	$3.91	$123.79	1.72	12.00%		$5.53	$5.53
	2026	$75.97	34.08%	$5.85	$8.87	$3.02	2.10%	$1.11	$4.13	$130.91	1.72	12.00%		$5.85	$5.85
	2027	$80.34	34.08%	$6.18	$9.38	$3.20	2.10%	$1.17	$4.37	$138.43	1.72	12.00%		$6.18	$6.18
	2028	$84.98	34.08%	$6.54	$9.92	$3.38	2.10%	$1.24	$4.62	$146.39	1.72	12.00%		$6.54	$6.54
	2029	$89.85	34.08%	$6.91	$10.49	$3.57	2.10%	$1.31	$4.89	$154.81	1.72	12.00%		$6.91	$6.91
	2030	$95.01	34.08%	$7.31	$11.09	$3.78	2.10%	$1.39	$5.17	$163.71	1.72	12.00%		$7.31	$7.31
	2031	$100.48	34.08%	$7.73	$11.73	$4.00	2.10%	$1.47	$5.46	$173.13	1.72	12.00%		$7.73	$7.73
	2032	$106.25	34.08%	$8.18	$12.40	$4.23	2.10%	$1.55	$5.78	$183.08	1.72	12.00%		$8.18	$8.18
	2033	$112.36	34.08%	$8.65	$13.12	$4.47	2.10%	$1.64	$6.11	$193.61	1.72	12.00%		$8.65	$8.65
	2034	$118.82	34.08%	$9.14	$13.87	$4.73	2.10%	$1.73	$6.46	$204.74	1.72	12.00%	$204.74	$9.14	$213.88
												Internal Rate of Return			10.29%

Source:

[A] First Stage is average from Value Line. Second stage is prior years' book plus value from Col [6]
[B] First Stage is (Col. [4]-Col [3])/Col [4]). Second stage is equal to final value of first stage.
[C] First Stage is from Value Line. Second stage is Col. [4] x (1-Col. [2])
[D] First Stage is from Value line. Second stage is average of current and prior year's value from Col. [1] x Col. [11]
[E] Col. [4] - Col. [3]
[F] Sch. JAR 9
[G]
[H] Col. [7] + Col. [8]
[I] Col. [1] x Col. [10]
[J] Sch. JAR 7, P. 1
[K] First stage is Col. [4]/Avg. of Current and prior year's Col. [1]. Second stage is f Sch. JAR 4, P. 1
[L] - Col. [9] for year of purchase, + Col. [9] for year of sale.
[M] Col. [3]
[N] Col. [12] + Col. [13]

COMPARATIVE WATER COMPANIES
SELECTED FINANCIAL DATA

Sch. JAR 6, P. 1

WATER COMPANIES AND DIVERSIFIED WATER COMPANIES COVERED BY VALUE LINE:

	[1] Book Per Sh. Dec. 92 [A]	[2] Book Per Sh. Dec. 93 [A]	[3] Book Per Sh. Dec. 94 [A]	[4] Book Per Sh. Dec. 95 [A]		[5] Market Price At Dec-95 [C]	[6] Market Price High for Year [C]	[7] Market Price Low for Year [C]	[8] Market to Book At Dec-95 [D]	[9] Market to Book Avg. for Year [D]	[10] Div. Rate [C]	[11] Dividend Yield At Dec-95 [E]	[12] Dividend Yield Avg. for Year [E]
American Water Works	$19.64	$20.97	$22.46	$23.75	E	$38.88	$38.13	$26.75	1.64	1.40	$1.28	3.29%	3.95%
Aquarion Co.	$16.28	$16.83	$17.21	$17.25	E	$25.50	$26.00	$21.63	1.48	1.38	$1.62	6.35%	6.80%
California Water Service	$21.02	$21.80	$23.12	$23.35	E	$32.75	$35.25	$29.63	1.40	1.40	$2.04	6.23%	6.29%
Consumers Water	$11.82	$12.06	$12.22	$12.50	E	$18.25	$19.00	$14.50	1.46	1.36	$1.20	6.58%	7.16%
Philadelphia Suburban Corp.	$10.88	$11.92	$12.53	$12.35	E	$20.75	$21.50	$17.38	1.68	1.56	$1.16	5.59%	5.97%
United Water Resources	$9.55	$10.00	$11.17	$10.95	E	$12.00	$14.13	$11.75	1.10	1.17	$0.92	7.67%	7.11%
AVERAGE	$14.87	$15.60	$16.45	$16.69		$24.69	$25.67	$20.27	1.46	1.38	$1.37	5.95%	6.21%

Sources:
[A] Most current Value Line at time of prep. of sch.
[B] Book value data for companies not in Value Line obtained from annual report to stockholders.
[C] New York Times
[D] Market price divided by book value
[E] Dividend rate divided by market price

COMPARATIVE WATER COMPANIES Sch. JAR 6, P. 2
EARNINGS PER SHARE AND RETURN ON EQUITY

WATER COMPANIES AND DIVERSIFIED WATER COMPANIES COVERED BY VALUE LINE:

	[1] EPS 1994 [A]	[2] EPS 1995 [A]		[3] Return on Eq. 1995 [B]	[4] Value Line Future Exp. Return on Eq. 11/10/95 [A]	Return on Equity 1994
American Water Works	$2.34	$2.50	E	10.82%	10.50%	10.78%
Aquarion Co.	$1.87	$1.70	E	9.87%	14.50%	10.99%
California Water Service	$2.44	$2.30	E	9.90%	11.00%	10.86%
Consumers Water	$1.17	$1.30	E	10.52%	10.50%	9.64%
Philadelphia Suburban Corp.	$1.35	$1.45	E	11.66%	12.50%	11.04%
United Water Resources	$1.01	$0.90	E	8.14%	11.50%	9.54%
Average	$1.70	$1.69		10.15%	11.75%	10.47%

Source

[A] Value Line
[B] Earnings Per Share divded by average book value. Book value shown on Sch. JAR 6, P. 1

RETURN ON EQUITY IMPLIED IN ZACK'S CONSENSUS GROWTH RATES

Sch. JAR 6, P. 3

	Dec. 94 Y/E Book [3]	Earnings 1994	Dividends	Zack's Consensus 5 Year Growth Rate 11/30/95	Y/E Book in 1998 at Zack's Growth	Y/E Book in 1999 at Zack's Growth	Earnings 1999 at Zack's Growth	Return on Equity to achieve Zack's Growth
American Water Works	$22.46	$2.34	$1.28	5.80%	$27.35	$28.76	$3.10	11.06%
Aquarion Co.	$17.21	$1.87	$1.62	4.00%	$18.31	$18.62	$2.28	12.32%
California Water Service	$23.12	$2.44	$2.04	3.00%	$24.84	$25.31	$2.83	11.28%
Consumers Water	$12.22	$1.17	$1.20	4.00%	$12.09	$12.05	$1.42	11.79%
Philadelphia Suburban Corp.	$12.53	$1.35	$1.16	3.60%	$13.36	$13.59	$1.61	11.96%
United Water Resources	$11.17	$1.01	$0.92	2.70%	$11.55	$11.66	$1.15	9.94%
				3.85%				11.39%

Projected return on equity is obtained by escalating both dividends and earnings per share by the stated growth rate, and adding earnings and subtracting dividends in each year to determine the book value

COMPARATIVE GAS COMPANIES
SELECTED FINANCIAL DATA

Sch. JAR 7, P. 1

GAS COMPANIES COVERED BY VALUE LINE:

[1]	[2] Book Per Sh Y/E 1992 [A]	[3] Book Per Sh. Y/E 1993 [A]	Book Per Sh Y/E 1994 [A]	[4] Book Y/E Y/E 1995 [A]		[5] Market Price At Dec. 1995 [B]	[6] Market Price High for 1995 [B]	[7] Market Price Low for 1995 [B]	[8] Market to Book At Dec. 1995 [C]	[9] Market to Book Avg. for 1995 YTD [C]	[10] Div. Rate [B]	[11] Dividend Yield At Dec. 1995 [D]	[12] Dividend Yield Avg for YTD [D]
Atlanta Gas Light	$9.70	$9.90	$10.19	$10.13		$19.75	$20.00	$14.88	1.95	1.72	$1.06	5.37%	6.08%
Atmos Energy Corp.	$9.17	$9.64	$9.78	$10.95	E	$23.00	$23.00	$15.88	2.10	1.88	$0.96	4.17%	4.94%
Bay State Gas Co.	$14.90	$15.52	$16.20	$16.47		$27.75	$29.50	$22.25	1.68	1.58	$1.50	5.41%	5.80%
Brooklyn Union Gas	$14.55	$15.54	$16.27	$16.85	E	$29.25	$29.63	$22.00	1.74	1.56	$1.42	4.85%	5.50%
Cascade Natural Gas	$9.09	$9.96	$9.84	$9.85	E	$16.00	$17.50	$13.00	1.62	1.55	$0.96	6.00%	6.30%
Connecticut Energy	$12.80	$13.33	$14.45	$14.84		$22.25	$22.50	$18.50	1.50	1.40	$1.30	5.84%	6.34%
Connecticut Natural Gas	$13.26	$14.29	$14.62	$15.12		$23.38	$25.25	$21.25	1.55	1.56	$1.48	6.33%	6.37%
Energen Corp.	$12.75	$13.60	$15.30	$15.93		$24.13	$25.13	$20.13	1.51	1.45	$1.16	4.81%	5.13%
Indiana Energy, Inc	$10.22	$11.52	$12.03	$12.44		$23.88	$24.13	$17.63	1.92	1.71	$1.10	4.61%	5.27%
Laclede Gas Company	$11.79	$12.19	$12.44	$13.00	E	$21.25	$23.13	$18.38	1.63	1.63	$1.26	5.93%	6.07%
MCN Corporation	$7.44	$7.97	$8.55	$9.85	E	$23.25	$23.50	$16.38	2.36	2.17	$0.93	4.00%	4.66%
NUI Corp.	$14.55	$14.92	$15.59	$15.90	E	$17.50	$17.75	$14.00	1.10	1.01	$0.90	5.14%	5.67%
New Jersey Resources	$14.16	$14.72	$14.46	$14.55		$30.13	$30.00	$21.50	2.07	1.78	$1.52	5.05%	5.90%
NICOR	$12.76	$13.05	$13.26	$13.65	E	$27.50	$28.50	$21.75	2.01	1.87	$1.28	4.65%	5.09%
Northwest Nat. Gas Co.	$18.62	$19.62	$20.44	$21.70	E	$33.00	$34.25	$27.50	1.52	1.47	$1.80	5.45%	5.83%
ONEOK, Inc.	$13.28	$13.63	$13.88	$14.38		$22.88	$24.81	$17.13	1.59	1.48	$1.18	5.07%	5.53%
Pacific Enterprises Corp.	$9.44	$12.19	$14.74	$15.20	E	$28.25	$28.63	$20.75	1.86	1.65	$1.36	4.81%	5.51%
Peoples Energy Corp.	$17.72	$18.02	$18.39	$18.40	E	$31.75	$32.00	$24.25	1.73	1.53	$1.80	5.67%	6.40%
Piedmont Natural Gas	$10.27	$10.90	$11.36	$12.30	E	$23.25	$24.88	$18.25	1.89	1.82	$1.10	4.73%	5.10%
Providence Energy Corp.	$12.02	$13.37	$13.82	$13.85	E	$17.00	$17.50	$14.63	1.23	1.16	$1.08	6.35%	6.72%
South Jersey Industries, Inc.	$13.90	$14.33	$14.46	$14.50	E	$23.13	$23.50	$17.88	1.59	1.43	$1.44	6.23%	6.96%
Southwest Gas Corp.	$15.99	$15.96	$15.31	$15.80	E	$17.63	$18.38	$13.63	1.12	1.03	$0.82	4.65%	5.13%
UGI	$12.97	$13.00	$13.13	$11.50	E	$20.75	$22.13	$18.88	1.80	1.66	$1.40	6.75%	6.83%
Washington Energy	$13.88	$13.85	$10.83	$8.15	E	$18.63	$19.13	$12.63	2.29	1.67	$1.00	5.37%	6.30%
Washington Gas	$10.67	$11.04	$11.51	$11.95	E	$20.50	$22.38	$16.13	1.72	1.64	$1.12	5.46%	5.82%
WICOR, Inc.	$15.91	$16.47	$17.23	$18.80	E	$32.25	$32.88	$26.63	1.72	1.65	$1.64	5.09%	5.51%
AVERAGE	$12.76	$13.41	$13.77	$14.08		$23.77	$24.61	$18.68	1.72	1.58	$1.25	5.30%	5.80%

Sources.
[A] Most current Value Line at time of prep. of sch.
[B] Most current Value Line at time of prep. of sch.
[C] Market Price Divided by Book Value
[D] Dividend Rate Divided by Market Price

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COMPARATIVE GAS COMPANIES **Sch. JAR 7, P. 2**
EARNINGS PER SHARE AND RETURN ON EQUITY

GAS COMPANIES COVERED BY VALUE LINE:

	[1] EPS 1994 [A]	[2] EPS 1995 [A]		[3] Return on Eq. 1995 [B]	[4] Value Line Future Exp. Return on Eq. 12/29/95 [A]	Return on Equity 1994
Atlanta Gas Light	$1.17	$1.33		13.09%	13.00%	11.65%
Atmos Energy Corp.	$0.97	$1.22		11.77%	11.00%	9.99%
Bay State Gas Co	$1.85	$1.71		10.47%	12.00%	11.66%
Brooklyn Union Gas	$1.85	$1.90		11.47%	11.50%	11.63%
Cascade Natural Gas	$0.60	$0.85	E	8.63%	12.50%	6.06%
Connecticut Energy	$1.58	$1.60		10.93%	11.00%	11.38%
Connecticut Natural Gas	$1.85	$1.52		10.22%	12.50%	12.80%
Energen Corp.	$2.01	$1.77		11.34%	12.00%	13.91%
Indiana Energy, Inc.	$1.53	$1.46		11.93%	14.50%	12.99%
Laclede Gas Company	$1.42	$1.27		9.98%	11.50%	11.53%
MCN Corporation	$1.31	$1.40		15.22%	13.00%	15.86%
NUI Corp	$1.25	$1.11		7.05%	9.00%	8.19%
New Jersey Resources	$1.89	$1.93		13.31%	14.00%	12.95%
NICOR	$2.07	$1.95		14.49%	15.50%	15.74%
Northwest Nat. Gas Co	$2.44	$2.35		11.15%	12.00%	12.18%
ONEOK, Inc.	$1.34	$1.58		11.18%	11.50%	9.74%
Pacific Enterprises Corp	$1.95	$2.10	E	14.03%	13.50%	14.48%
Peoples Energy Corp.	$2.13	$1.78		9.68%	13.00%	11.70%
Piedmont Natural Gas	$1.35	$1.45		12.26%	12.50%	12.13%
Providence Energy Corp	$1.46	$1.09		7.88%	11.00%	10.74%
South Jersey Industries, Inc.	$1.21	$1.60	E	11.05%	12.00%	8.41%
Southwest Gas Corp	$1.22	$0.75	E	4.82%	8.00%	7.80%
UGI	$1.17	$0.52		4.22%	12.00%	8.96%
Washington Energy	($0.16)	$0.35		3.69%	15.50%	-1.30%
Washington Gas	$1.42	$1.45		12.36%	11.50%	12.55%
WICOR, Inc.	$2.09	$2.25	E	12.49%	12.50%	12.40%
Average	$1.50	$1.47		10.57%	12.23%	11.01%

Source:

[A] Value Line

[B] Earnings Per Share divded by average book value. Book value shown on Sch. JAR 7, P. 1

RETURN ON EQUITY IMPLIED IN ZACK'S CONSENSUS GROWTH RATES

Sch. JAR 7, P. 3

	1994 Y/E *Book* [4]	Earnings *1994*	Dividends	Zack's *Consensus* 5 Year Growth Rate 11/30/95	Y/E Book in 1997 at Zack's Growth	Y/E Book in 1998 at Zack's Growth	Earnings 1999 at Zack's Growth	Return on Equity to achieve Zack's Growth
Atlanta Gas Light	$10.19	$1.17	$1.06	4.80%	$10.69	$10.82	$1.48	13.75%
Atmos Energy Corp.	$9.78	$0.97	$0.96	6.00%	$9.83	$9.84	$1.30	13.20%
Bay State Gas Co.	$16.20	$1.85	$1.50	4.40%	$17.76	$18.20	$2.29	12.76%
Brooklyn Union Gas	$16.27	$1.85	$1.42	4.30%	$18.18	$18.71	$2.28	12.38%
Cascade Natural Gas	$9.84	$0.60	$0.96	5.80%	$8.18	$7.70	$0.80	10.02%
Connecticut Energy	$14.45	$1.58	$1.30	4.60%	$15.70	$16.05	$1.98	12.46%
Connecticut Natural Gas	$14.62	$1.85	$1.48	3.10%	$16.22	$16.65	$2.16	13.11%
Energen Corp.	$15.30	$2.01	$1.16	5.60%	$19.20	$20.32	$2.64	13.36%
Indiana Energy, Inc.	$12.03	$1.53	$1.10	5.10%	$13.98	$14.53	$1.96	13.76%
Laclede Gas Company	$12.44	$1.42	$1.26	3.50%	$13.14	$13.33	$1.69	12.74%
MCN Corporation	$8.55	$1.31	$0.93	8.70%	$10.43	$11.01	$1.99	18.55%
NUI Corp	$15.59	$1.25	$0.90	4.10%	$17.14	$17.57	$1.53	8.81%
New Jersey Resources	$14.46	$1.89	$1.52	4.80%	$16.13	$16.59	$2.39	14.60%
NICOR	$13.26	$2.07	$1.28	4.20%	$16.77	$17.74	$2.54	14.74%
Northwest Nat. Gas Co.	$20.44	$2.44	$1.80	4.90%	$23.33	$24.14	$3.10	13.06%
ONEOK, Inc.	$13.88	$1.34	$1.16	6.50%	$14.72	$14.97	$1.84	12.36%
Pacific Enterprises Corp.	$14.74	$1.95	$1.36	4.60%	$17.38	$18.12	$2.44	13.75%
Peoples Energy Corp.	$18.39	$2.13	$1.80	3.10%	$19.62	$20.20	$2.48	12.40%
Piedmont Natural Gas	$11.36	$1.35	$1.10	5.90%	$12.52	$12.85	$1.80	14.18%
Providence Energy Corp.	$13.82	$1.46	$1.08	4.50%	$15.52	$15.99	$1.82	11.55%
South Jersey Industries, Inc.	$14.46	$1.21	$1.44	4.00%	$13.44	$13.16	$1.47	11.07%
Southwest Gas Corp.	$15.31	$1.22	$0.82	4.80%	$17.11	$17.62	$1.54	8.86%
UGI	$13.13	$1.17	$1.40	9.50%	$11.97	$11.61	$1.84	15.62%
Washington Energy	$10.83	($0.16)	$1.00	4.50%	$5.64	$4.20	($0.20)	-4.05%
Washington Gas	$11.51	$1.42	$1.12	3.70%	$12.80	$13.16	$1.70	13.07%
WICOR, Inc.	$17.23	$2.09	$1.64	8.70%	$19.46	$20.14	$3.17	16.02%
				5.14%				12.39%

Projected return on equity is obtained by escalating both dividends and earnings per share by the *stated growth rate, and adding earnings and subtracting* dividends in each year to determine the book value.

Sch. JAR 8, P. 1

Summary of Risk Premium Equations
Electric Industry Analysis Applied to
Water. Companies
Interest Rates on 10/31/95

Indicated
Cost of Equity

Equation based on 30 Year Treasury Rate

Cost of Equity = 1.331 X Interest Rate + .589 X Ext. Fin.Rate - 0.24%

Interest Rate=	5.96%			
Interest Rate X	1.331		7.93%	
Ext. Fin. Rate =	1.40%			
Ext. Fin. Rate X	0.589	=	0.82%	
Constant			-0.24%	
				8.52%

Equation based on 5 Year Treasury Rate

Cost of Equity = 0.657 X Interest Rate + .5706 X Ext. Fin.Rate + 5.58%

Interest Rate=	5.39%			
Interest Rate X	0.657	=	3.54%	
Ext. Fin. Rate =	1.40%			
Ext. Fin. Rate X	0.5706	=	0.80%	
Constant			5.58%	
				9.92%

Equation based on 1 Year Treasury Rate

Cost of Equity = 0.3853 X Interest Rate + .5730 X Ext. Fin.Rate + 8.05%

Interest Rate=	5.20%			
Interest Rate X	0.3853	=	2.00%	
Ext. Fin. Rate =	1.40%			
Ext. Fin. Rate X	0.573	=	0.80%	
Constant			8.05%	
				10.86%
	Average of 3			9.76%

Source: Yields from 12/30/95 New York Times
Regression analysis of cost of equity for all electric companies covered by Value Line vs interest rate and external financing rate.

All equations have an F that is significant to at least 99.99%

Summary of Risk Premium Equations
Electric Industry Analysis Applied to
Gas Dist. Companies
Interest Rates on 10/31/95

Indicated
Cost of Equity

Equation based on 30-Year Treasury Rate

Cost of Equity = 1.331 X Interest Rate + .589 X Ext. Fin.Rate - 0.24%

	6.63%			
Interest Rate=	5.96%			
Interest Rate X	1.331	=	7.93%	
Ext. Fin. Rate =	2.10%			
Ext. Fin. Rate X	0.589	=	1.24%	
Constant			-0.24%	
				8.93%

Equation based on 5-Year Treasury Rate

Cost of Equity = 0.657 X Interest Rate + .5706 X Ext. Fin.Rate + 5.58%

Interest Rate=	5.39%			
Interest Rate X	0.657	=	3.54%	
Ext. Fin. Rate =	2.10%			
Ext. Fin. Rate X	0.5706	=	1.20%	
Constant			5.58%	
				10.32%

Equation based on 1-Year Treasury Rate

Cost of Equity = 0.3853 X Interest Rate + .5730 X Ext. Fin.Rate + 8.05%

Interest Rate=	5.20%			
Interest Rate X	0.3853	=	2.00%	
Ext. Fin. Rate =	2.10%			
Ext. Fin. Rate X	0.573	=	1.20%	
Constant			8.05%	
				11.26%
	Average of 3			10.17%

Source: Yields from 7/1/95 New York Times
Regression analysis of cost of equity for all electric companies covered by Value Line vs interest rate and external financing rate.

All equations have an F that is significant to at least 99.99%

CAPITAL ASSET PRICING MODEL (CAPM) METHOD
Water Utilities

		Amount	Source
Risk Premium:			
1	Actual Earned Return on S&P Industrials 1926 through 1994	10.20%	Ibbotson Associates
2	Actual Earned Return on 30-Year Treas. Bonds from 1926 through 1994	4.80%	Ibbotson Associates
3	Difference	5.40%	Line 1 - Line 2
4	Current Interest Rate on 30-year Treasury Bonds	5.96%	
5	CAPM Indicated Cost of Equity on Industrual Companies	11.36%	Line 3 + Line 4
6	Indicated cost rate for water utilities		
	a Beta of Water Utilities	0.64	Value Line, average of water companies
	b Beta of 30-year treasuries	0.40	Computed
	c Beta of average company	1.00	Definition of beta
	d Change in capital cost rate with change in beta from average company to treasury beta	5.40%	Line 3
	e Change in capital cost rate per .01 change in beta	0.0900%	Line 6d/(Line c-Line b)/100
	f Capital cost reduction concurrent with change in beta from 1.00 to 0.64	3.24%	((Line 6c-Line 6a) x Line 6e) x 100
	g CAPM Risk Premium Indicated for Water Utilities	2.16%	Line 6d - Line 6f
	h Cost of equity indicated by CAPM Method applied to water utilities	8.12%	Line 6g + Line 4

CAPITAL ASSET PRICING MODEL (CAPM) METHOD
Gas Utilities

		Amount	Source
Risk Premium:			
1	Actual Earned Return on S&P Industrials 1926 through 1994	10.20%	Ibbotson Associates
2	Actual Earned Return on 30-Year Treas. Bonds from 1926 through 1994	4.80%	Ibbotson Associates
3	Difference	5.40%	Line 1 - Line 2
4	Current Interest Rate on 30-year Treasury Bonds	5.96%	
5	CAPM indicated Cost of Equity on Industrual Companies	11.36%	Line 3 + Line 4
6	Indicated cost rate for water utilities		
	a Beta of Gas Utilities	0.59	Value Line, average of gas dist. companies
	b Beta of 30-year treasuries	0.40	Computed
	c Beta of average company	1.00	Definition of beta
	d Change in capital cost rate with change in beta from average company to treasury beta	5.40%	Line 3
	e Change in capital cost rate per .01 change in beta	0.0900%	Line 6d/(Line c-Line b)/100
	f Capital cost reduction concurrent with change in beta from 1.00 to 0.59	3.69%	((Line 6c-Line 6a) x Line 6e) x 100
	g CAPM Risk Premium Indicated for Gas Utilities	1.71%	Line 6d - Line 6f
	h Cost of equity indicated by CAPM Method applied to gas utilities	7.67%	Line 6g + Line 4

VALUE LINE WATER COMPANIES
EXTERNAL FINANCING RATE
(Millions of Shares)

Common Stock Outstanding	**1995**	**1998-2000**	**Compound Annual Growth**
American Water Works	33.50 E	35.50	1.46%
Aquarion Co.	6.50 E	6.50	0.00%
California Water Service	6.25 E	6.75	1.94%
Consumers Water	8.40 E	9.75	3.80%
Philadelphia Suburban Corp.	12.00 E	12.50	1.03%
United Water Resources	32.00 E	32.00	0.00%
	16.44	17.17	
	Average		1.37%
	Round to		1.40%

Source:
Value Line

VALUE LINE GAS COMPANIES
EXTERNAL FINANCING RATE
(Millions of Shares)

Common Stock Outstanding	1995	1998-00	Compound Annual Growth
Atlanta Gas Light	25.43	29.00	3.34%
Atmos Energy Corp.	15.75 E	17.50	2.67%
Bay State Gas Co.	13.53	14.00	0.86%
Brooklyn Union Gas	48.70 E	52.00	1.65%
Cascade Natural Gas	9.20 E	11.25	5.16%
Connecticut Energy	8.87	10.50	4.31%
Connecticut Natural Gas	9.93	11.00	2.59%
Energen Corp.	10.92	11.50	1.30%
Indiana Energy, Inc.	22.56	21.65	-1.02%
Laclede Gas Company	17.45 E	17.60	0.21%
MCN Corporation	66.30 E	76.00	3.47%
NUI Corp.	9.20 E	11.50	5.74%
New Jersey Resources	17.79	19.00	1.66%
NICOR	50.00 E	48.50	-0.76%
Northwest Nat. Gas Co.	14.80 E	15.75	1.57%
ONEOK, Inc.	27.02	27.50	0.44%
Pacific Enterprises Corp.	84.70 E	87.05	0.69%
Peoples Energy Corp.	34.90 E	35.15	0.18%
Piedmont Natural Gas	28.85 E	32.50	3.02%
Providence Energy Corp.	5.65 E	6.50	3.57%
South Jersey Industries, Inc.	10.75 E	12.25	3.32%
Southwest Gas Corp.	24.50 E	28.00	3.39%
UGI	33.00 E	37.00	2.90%
Washington Energy	24.20 E	25.25	1.07%
Washington Gas	43.00 E	46.00	1.70%
WICOR, Inc.	18.25 E	19.50	1.67%
	25.97	27.83	
	Average		2.10%
	Round to		2.10%

Source:
Value Line, Sept. 29, 1995

Water Companies
Percentage of Common Equity in the Capital Structure
Excluding Short-term Debt

Value Line Water Companies	1988	1989	1990	1991	1992	1993	1994	1995 Estimate		1996 Estimate
American Water Works	38.30%	37.10%	38.10%	35.00%	36.60%	33.70%	34.20%	34.00%	E	34.00%
Aquarion Co.	55.50%	56.90%	47.50%	44.20%	48.00%	48.90%	50.80%	49.50%	E	51.00%
California Water Service	53.80%	55.10%	51.30%	52.40%	48.80%	48.20%	52.20%	50.00%	E	52.00%
Consumers Water Company	43.60%	41.40%	37.50%	43.90%	41.10%	43.70%	43.00%	42.00%	E	45.50%
Philadelphia Suburban Corp.	37.10%	34.50%	32.70%	32.50%	39.50%	46.70%	47.40%	46.50%	E	45.50%
United Water Resources	37.80%	34.60%	36.10%	33.80%	35.40%	39.50%	36.40%	34.50%	E	42.00%
AVERAGE	44.35%	43.27%	40.53%	40.30%	41.57%	43.45%	44.00%	42.75%		45.00%

Source: Value Line

Sch. JAR 11, P. 2

Gas Companies
Percentage of Common Equity in the Capital Structure
Excluding Short-term Debt

	1990	1991	1992	1993	1994	1995	Est. 1998-2000
Value Line Gas Companies							
Atlanta Gas Light	47.80%	48.80%	58.10%	53.10%	45.80%	47.60%	50.00%
Atmos Energy Corp.	48.30%	47.70%	50.30%	56.70%	51.90%	53.00% E	56.00%
Bay State Gas Co.	53.70%	48.00%	57.00%	51.90%	52.30%	51.90%	54.00%
Brooklyn Union Gas	46.80%	45.40%	47.80%	50.80%	52.20%	53.00% E	51.50%
Cascade Natural Gas	46.30%	46.70%	45.60%	47.30%	44.90%	45.50% E	45.00%
Connecticut Energy	44.60%	50.10%	49.40%	45.20%	51.20%	54.20%	52.50%
Connecticut Natural Gas	48.70%	49.50%	48.70%	49.50%	47.30%	49.80%	50.50%
Energen Corp.	58.70%	60.60%	58.40%	62.00%	58.50%	56.90%	60.00%
Indiana Energy, Inc.	62.10%	53.20%	55.50%	61.10%	63.10%	61.40%	64.00%
Laclede Gas Company	58.10%	52.50%	55.30%	53.10%	55.50%	59.00% E	55.50%
MCN Corporation	47.40%	50.60%	52.70%	48.40%	39.30%	39.00% E	39.00%
NUI Corp.	44.00%	41.30%	44.60%	44.20%	45.20%	40.00% E	47.00%
New Jersey Resources	42.70%	37.80%	44.80%	42.60%	42.00%	41.00%	42.00%
NICOR	60.30%	59.40%	62.10%	59.70%	56.90%	54.50% E	57.00%
Northwest Nat. Gas Co.	47.00%	43.20%	43.90%	45.00%	45.10%	47.00% E	48.00%
ONEOK, Inc.		51.00%		49.00%	50.00%	52.00%	
Pacific Enterprises Corp.	44.40%	36.70%	23.10%	35.70%	38.10%	41.50% E	51.00%
Peoples Energy Corp.	51.00%	52.10%	55.10%	54.30%	50.60%	55.00% E	52.00%
Piedmont Natural Gas	53.00%	52.00%	53.40%	50.60%	49.10%	49.50% E	49.50%
Providence Energy Corp.	52.30%	50.70%	44.10%	51.10%	53.10%	48.00% E	53.50%
South Jersey Industries, Inc.	51.70%	53.30%	52.10%	48.90%	49.90%	46.50% E	49.50%
Southwest Gas Corp.	40.30%	38.10%	35.20%	35.00%	34.00%	33.00% E	36.00%
UGI	32.20%	44.90%	50.70%	49.30%	51.60%	30.50% E	40.50%
Washington Energy	46.10%	52.20%	47.50%	46.60%	40.30%	34.00% E	34.50%
Washington Gas	56.40%	56.90%	57.30%	54.90%	56.70%	59.00% E	57.50%
WICOR, Inc.	64.30%	58.30%	59.00%	62.10%	64.30%	65.00% E	66.00%
AVERAGE	49.93%	49.27%	50.07%	50.31%	49.57%	48.76%	50.48%

Source: Value Line

COMPARISON OF STOCK PRICE VOLATILITY OF WATER COMPANIES VS GAS DISTRIBUTION COMPANIES

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Water Companies High as Percent of Low	137.27%	162.26%	149.18%	159.44%	134.74%	122.82%	152.47%	145.96%	130.59%	125.14%	125.86%	126.12%
Gas Companies High as Percent of Low	139.42%	135.37%	140.01%	158.03%	130.71%	137.22%	130.13%	135.49%	131.59%	131.94%	137.05%	132.41%
Gas High/Low Percent/Water High/Low Percent	1.56%	-16.57%	-6.15%	-0.88%	-2.99%	11.73%	-14.65%	-7.17%	0.77%	5.43%	8.89%	4.99%

VALUE WATER UTILITY INDUSTRY HI/LOW STOCK PRICES
1984 TO 1995

HIGH STOCK PRICE FOR YEAR:

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
American Water Works	$10.30	$16.50	$22.30	$25.90	$18.80	$21.50	$19.60	$26.80	$28.40	$32.10	$32.30	$38.13
Aquarion Co.	$15.50	$24.70	$29.80	$34.90	$36.00	$29.60	$25.90	$27.30	$25.50	$29.30	$28.00	$26.00
California Water Svc.	$15.80	$24.60	$30.30	$32.00	$32.30	$28.80	$28.50	$31.30	$35.00	$41.30	$41.00	$35.25
Consumers Water	$12.30	$17.30	$22.50	$22.50	$21.30	$20.50	$18.30	$18.50	$19.80	$21.50	$18.80	$19.00
Philadelphia Suburban Corp.	$13.30	$15.50	$19.30	$19.00	$16.90	$14.50	$15.00	$16.40	$16.50	$20.80	$19.60	$21.50
United Water Resources	$9.10	$12.10	$18.10	$23.00	$20.50	$17.90	$16.50	$16.60	$16.60	$15.90	$14.80	$14.13

LOW STOCK PRICE FOR YEAR:

American Water Works	$6.80	$9.00	$13.90	$13.90	$14.90	$16.80	$12.50	$15.50	$20.60	$24.60	$25.30	$26.75
Aquarion Co.	$12.20	$14.80	$20.30	$22.00	$25.10	$24.40	$19.00	$19.90	$20.10	$24.60	$21.50	$21.63
California Water Svc.	$13.30	$15.30	$21.90	$22.80	$24.00	$23.50	$22.30	$22.30	$26.30	$32.30	$29.40	$29.63
Consumers Water	$8.00	$9.60	$15.90	$15.00	$15.80	$14.80	$10.00	$13.80	$14.30	$17.00	$15.30	$14.50
Philadelphia Suburban Corp.	$10.20	$11.50	$12.70	$12.10	$12.10	$12.80	$10.40	$11.80	$13.80	$15.60	$17.10	$17.38
United Water Resources	$6.40	$8.20	$11.60	$14.00	$15.80	$15.80	$9.90	$10.90	$13.00	$14.00	$12.30	$11.75

High as Percent of Low

American Water Works	151.47%	183.33%	160.43%	186.33%	126.17%	127.98%	156.80%	172.90%	137.86%	130.49%	127.67%	142.52%
Aquarion Co.	127.05%	166.89%	146.80%	158.64%	143.43%	121.31%	136.32%	137.19%	126.87%	119.11%	130.23%	120.23%
California Water Svc.	118.80%	160.78%	138.36%	140.35%	134.58%	122.55%	127.80%	140.36%	133.08%	127.86%	139.46%	118.99%
Consumers Water	153.75%	180.21%	141.51%	150.00%	134.81%	138.51%	183.00%	134.06%	138.46%	126.47%	122.88%	131.03%
Philadelphia Suburban Corp.	130.39%	134.78%	151.97%	157.02%	139.67%	113.28%	144.23%	138.98%	119.57%	133.33%	114.62%	123.74%
United Water Resources	142.19%	147.56%	156.03%	164.29%	129.75%	113.29%	166.67%	152.29%	127.69%	113.57%	120.33%	120.21%
Average	137.27%	162.26%	149.18%	159.44%	134.74%	122.82%	152.47%	145.96%	130.59%	125.14%	125.86%	126.12%

DOCKET 950495-WS
EXHIBIT NO. 184
CASE NO. 96-04227

#184

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for a rate increase for Orange-Osceola Utilities, Inc., in Osceola County, and in Bradford, Brevard, Charlotte, Citrus, Clay, Collier, Duval, Highlands, Lake, Lee, Marion, Martin, Nassau, Orange, Osceola, Pasco, Putnam, Seminole, St. Johns, St. Lucie, Volusia, and Washington Counties by Southern States Utilities, Inc.
_____/

COPY

DOCKET NO. 950495-WS

DEPOSITION OF:	STEPHANIE SMITH
TAKEN AT THE INSTANCE OF	Attorneys for Office of Public Counsel
DATE:	February 22, 1996
TIME:	Commenced at 10:00 a.m. Concluded at 10:30 a.m.
LOCATION:	Office of Public Counsel 111 West Madison Street Room 812 Tallahassee, Florida
REPORTED BY:	Carolyn L. Rankine Notary Public in and for the State of Florida at Large

DOCKET _____
EXHIBIT NO. _____
CASE NO. _____

ACCURATE STENOTYPE REPORTERS, INC.
100 Salem Court
Tallahassee, Florida 32301
904/878-2221
800/934-9090

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 950495-WS EXHIBIT NO. 184
COMPANY/ WITNESS: MacColeman, INC.
DATE: 4-29-97

APPEARANCES:

REPRESENTING THE OFFICE OF PUBLIC COUNSEL:

CHARLES J. BECK, DEPUTY PUBLIC COUNSEL
c/o The Florida Legislature
111 West Madison Street
Room 812
Tallahassee, Florida 32399-1400

REPRESENTING THE FPSC:

LILA JABER, ESQUIRE
Division of Legal Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399

REPRESENTING THE DEPARTMENT OF COMMERCE:

SHERRY CAPE, ESQUIRE
Department of Commerce
107 West Gaines Street, Suite 536
Tallahassee, Florida 32399-2000

REPRESENTING SOUTHERN STATES UTILITIES:

WILLIAM B. WILLINGHAM, ESQUIRE
Rutledge Ecenia Underwood
Purnell & Hoffman, P.A.
215 South Monroe Street, Suite 420
Tallahassee, Florida 32301

REPRESENTING SUGARMILL WOODS CIVIC ASSOC., MARCO ISLAND CIVIC ASSOC., SPRING HILL CIVIC ASSOC., CONCERNED CITIZENS OF LEHIGH ACRES, HARBOUR WOODS CIVIC ASSOC., EAST COUNTY WATER CONTROL DISTRICT:

MICHAEL B. TWOMEY, ESQUIRE
Route 28, Box 1264
Tallahassee, Florida 32310

I N D E X

EXHIBITS:

PROCEEDINGS

The following deposition of **STEPHANIE SMITH** was taken on oral examination, pursuant to notice, for purposes of discovery, and for use as evidence, and for other uses and purposes as may be permitted by the applicable and governing rules. Reading and signing is not waived.

* * *

Thereupon,

STEPHANIE SMITH

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

DIRECT EXAMINATION

BY MR. BECK:

Q Ms. Smith, my name is Charlie Beck. I'm with the Office of Public Counsel, and I'll be starting off asking questions. There may be questions from others at the end, we'll see. Would you please state your full name.

A Stephanie Anne Smith.

Q Are you employed by the Florida Department of Commerce?

A Yes, I am.

Q What is your position with the department?

A I'm an executive secretary.

Q To whom do you report at the Commerce Department?

A Secretary Charles Dusseau.

Q Are you his executive secretary?

A Yes.

Q How long have you held that position?

A Since September of 1995.

Q Do you know a person named Jeff Sharkey?

A Not personally; no.

Q Have you ever talked to him on the phone?

A Yes.

Q Do you know about how often you have talked to him?

A Less than five times.

Q Do you know Mr. Sharkey through any avenue other than work?

A No.

Q Do you recall when the last time was that you spoke with him?

A I believe it was the 1st of January of this year. I'm -- around approximately the 1st of January.

Q I'm going to hand you a document. It's two pages.

MR. BECK: Let me hand you that, and ask that it be marked as an exhibit.

(Deposition Exhibit 1 marked for identification.)

Q Do you have the exhibit in front of you?

A Yes, I do.

Q Do you recognize it?

A Yes.

Q What do you recognize it as?

A I recognize it as a copy of a facsimile that we received in our office from Jeff Sharkey.

Q Did you receive it on December 21st, 1995?

A To my knowledge, that's the date on there.

Q Did you speak to Mr. Sharkey about this FAX at all?

A Once, I believe, I spoke with him. Any other communication I had was probably with his office, and I don't recall his secretary's name.

Q Could you tell me what you recall about your conversation with Mr. Sharkey, first of all?

A I guess I spoke with him, I guess, it was during the Christmas holiday. Secretary Dusseau was in Argentina. I received this FAX, and this was not the first time we had received this FAX. It was a revision that he sent to me with a few changes. And so when I received it, I FAX'd it as I received it to Secretary Dusseau in Argentina for him to review.

Secretary Dusseau called me back with a few changes, which I then made to the letter, and we signed it and mailed it.

Q When you say signed it, is that a letter from Secretary Dusseau to Chairperson Clark at the Florida Public Service Commission?

A Yes.

Q If you would look, please, on the exhibit, which is the copy of the FAX. Toward the bottom left on the front there's some handwriting that says deadline is January 3rd. Do you see that?

A Yes.

Q Is that your handwriting?

A Yes.

Q Could you tell me what brought you about to write that there?

A When I spoke with Mr. Sharkey's office, I believe, you know, I explained to them that Secretary Dusseau was in Argentina. I would have to FAX it to him to review. And, you know, they said, well, we need to have it by January 3rd. So, okay, no problem. That's just a note to myself, really, saying deadline is January 3rd.

Q And this was speaking to somebody at Jeff Sharkey's office?

A Yes. I did not speak to Mr. Sharkey at that time.

Q And you don't recall the name of the person?

A I don't recall her name; no.

Q But it was a female?

A It was a female. And I guess she's Jeff's assistant, but I don't remember her name.

Q Did the person you talked to say why they had to have it by January 3rd?

A (Witness shaking head.)

MR. WILLINGHAM: You should talk so the court reporter can hear you.

A Okay.

Q Did anybody ask you about the January 3rd deadline that you wrote on this FAX?

A No.

Q And nobody within the commerce department nor Secretary Dusseau asked you about the January 3rd deadline?

A No.

Q Your writing of the deadline as January 3rd, was that on the FAX as it was sent to Secretary Dusseau?

A No.

Q That was just for your --

A Yes. This is just for my information. I just

wrote it on the FAX that we received from Mr. Sharkey. I used another FAX cover sheet to FAX the letter that you have behind here to Secretary Dusseau for his review.

Q Now, if you recall, did you ask if there was a deadline, or did the person in Jeff Sharkey's volunteer there was a deadline?

A I told her that he was in Argentina. He would have to review it. So maybe a day or two. She said, well, we need it here by January 3rd, so fine.

Q Do you recall any mention at any time leading up to Secretary Dusseau's letter of an agenda conference being held at the Public Service Commission?

A No.

Q Did you hear about them, or did you hear anybody mention that they were going to make a decision affecting Southern States Utilities?

A No.

Q Was there any mention that you heard in the office of the fact that the Lieutenant Governor had already sent a letter to the Public Service Commission?

A No.

Q Do you know or have you ever talked with a person named Ida Roberts at Southern States Utilities?

A No.

Q How about a person named Tracy Smith; man?

A No.

Q Brian Armstrong?

A No.

Q Carla Teasley?

A No.

Q Was the last time -- and I just want to make sure I have that right -- the last time you spoke with Mr. Sharkey was at or about the time that Secretary Dusseau's letter went to Chairperson Clark?

A Yes. I couldn't give you an exact date.

Q Do you recall what that was about when you talked to him then?

A No; I really don't.

MR. BECK: I think that's all I have. Thank you, very much. There may be others.

CROSS EXAMINATION

BY MR. TWOMEY:

Q I'll be very quick. Do you have any recollection of what the subject matter was with any of your conversations with Jeff Sharkey?

A Not specifically; no. It was just -- you know, just said, you know, did you receive the FAX. Yes, I received the FAX. Secretary Dusseau is in Argentina. I have to FAX it to him for his review, and it was along those lines.

Q I see. When you mentioned that this document that Mr. Beck gave you wasn't the first FAX, that there had been an earlier one with a draft letter for Secretary Dusseau's signature --

A Right.

Q -- when you received that facsimile, was there any discussion about what the purpose of the letter was for?

A I didn't hear any discussion about it.

MR. TWOMEY: Thank you very much.

MS. JABER: I don't have any questions for you at this time.

MR. WILLINGHAM: I don't have any questions.

(Deposition concluded at 10:30 a.m.)

CERTIFICATE OF ADMINISTERING OATH

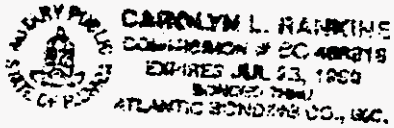
STATE OF FLORIDA:

COUNTY OF LEON:

I, CAROLYN L. RANKINE, Registered Professional Reporter and Notary Public in and for the State of Florida at Large:

DO HEREBY CERTIFY that on the date and place indicated on the title page of this transcript, an oath was duly administered by me to the designated witness before testimony was taken.

DATED THIS 24th day of April, 1996.



CAROLYN L. RANKINE
Commission #: CC 469816
100 Salem Court
Tallahassee, Florida 32301
904/878-2221

My commission expires: July 23, 1999

CERTIFICATE OF REPORTER

STATE OF FLORIDA:

COUNTY OF LEON:

I, CAROLYN L. RANKINE, do hereby certify that the foregoing proceedings were taken before me at the time and place therein designated; that my shorthand notes were thereafter translated under my supervision; and the foregoing pages numbered 1 through 11 are a true and correct record of the aforesaid proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor relative or employee of such attorney or counsel, or financially interested in the foregoing action.

DATED THIS 24th day of April, 1996.

CAROLYN L. RANKINE
100 Salem Court
Tallahassee, Florida 32301
904/878-2221

Capital Strategies

116 South Monroe Street Tallahassee, Florida 32301
Phone: (904) 224-6789 FAX (904) 222-6981

FACSIMILE

To	Secretary Charles Dusseau Department of Commerce 922-9150
Date	December 21, 1995

- (x) For your information
- ( ) For your signature
- ( ) For your response
- ( ) Urgent

Message

Charles:

Here is the revised letter for Southern States Utilities as we discussed. Let me know if this is ok. Have a good holiday. Thanks

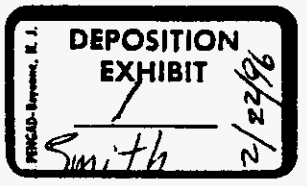
-Jeff

Stephanie - Bold print is new section
Marks -

Deadline is Fri. 3rd

SHARKEY

2 Page(s) w/ cover



December 18, 1995

Susan F. Clark, Chairperson
Florida Public Service Commission
Gunther Building
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0855

Dear Commissioner Clark:

I recently received a copy of a letter sent to Governor Chiles by Mr. Arend Sandbulte, Chairman and CEO of Minnesota Power in Duluth, Minnesota. As you are aware, Minnesota Power owns Southern States Utilities, a water and wastewater utility company based in Apopka. This letter outlined his corporation's concerns regarding the PSC's recent uniform rate ruling pertaining to Minnesota Power (PSC-95-1292-FOF-WS).

Businesses frequently contact this Department with concerns about regulatory decisions, and the PSC under your leadership has been very supportive of our efforts to ensure a fair and favorable setting for economic development in Florida. Your recent cooperation on the economic development expenditures issue and the telephone area code issue are good examples. However, as you can immagine, one of the basic elements for business survival in any marketplace is a predictable and stable business climate. Without it, business managers are unable to make informed decisions which can often make the difference between business survival and failure. An unpredictable environment, even in a regulated setting, can put tremendous financial pressure on firms such as SSU, which may lead them to rethink their investment in Florida. could and cause businesses considering as a site for expansion to go elsewhere.

In this case, I have asked a member of our staff, Nick Leslie, to consult with your staff and with the Water Policy Office in the Department of Environmental Protections. Nick will advise me on the reasoning behind the Commission's order and on what, if any, recourse might be available to Southern States Utilities. Nick can be reached at 487-2568.

As always, I appreciate the cooperation of the Commission and thank you for your attention to this issue.

Sincerely,

Charles Dusseau
Secretary of Commerce

cc: Governor Chiles
Jeff Sharkey