96-04227

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.

FIRST DAY - EVENING SESSION

VOLUME 4

Pages 431 through 508

PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN SUSAN F. CLARK COMMISSIONER J. TERRY DEASON COMMISSIONER JULIA L. JOHNSON COMMISSIONER DIANE K. KIESLING COMMISSIONER JOE GARCIA
DATE:	Monday, April 29, 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 3.)

CONTINUED CROSS EXAMINATION

BY MR. PELLEGRINI:

Q Mr. Denny, in your opinion, is there a difference between a percolation or evaporation pond and a holding pond?

A There could be in some people's terminology. A holding pond references a substandard pond that is required of some wastewater facilities that are out of compliance. The water is there and is recycled back to the plant. In that way of thinking, a holding pond is completely different from a percolation/evaporation being used as a holding pond. I suppose it could.

Q On the other hand, could a holding pond be used as a percolation pond?

A No, sir, I don't think so. The terminology, I think, is a problem here.

Q A problem?

A Well, as I said, most of the time a holding pond is referred to as a substandard pond, and that is completely different than an evaporation/percolation pond.

Q Mr. Denny, if a utility has a wastewater plant and only one percolation pond, all right, in your opinion would that configuration cause customers to reduce their demand on

the water resources? Is that clear, or should I repeat?

A Try that again, please.

Q If the utility has a wastewater plant and one percolation pond, would that configuration cause its customers to reduce their demand upon the water source, on the water resource?

A No, I don't think so.

Q If that same utility had a second percolation pond, would that make a difference?

A No, sir.

Q If that utility had several ponds, would that make a difference, that is, in respect to the customers' demand on the water resource?

A I think the only way that that would make a difference in demand is one was public access reuse and you had reuse lines that people could use to water for irrigation purposes would be the only way that I see a percolation pond would make a difference on water consumption.

Q Then your answer to the question would be no?

A That it would not influence?

Q Yes, that is correct.

A No.

Q The customers demand upon the water resource, it would not?

A Right.

Q What this boils down to, then, is that the existence of percolation ponds has no affect on the customers' demand for water?

A I don't think it has any effect on the demand for water. I just think it is a way of recharging the aquifer from where the water is drawn from.

Q However, if the owners of a golf course, for example, having a consumptive use permit from the local water management district where it replaces the water normally pumped for irrigation with reclaimed water, would that, in your opinion, cause a reduction in the demand on the water resource?

A I think that that question is a little different from the one you had before. Before you were asking if perc ponds would have an impact on the water used by the customer, and now you are saying an impact on the resource. It's a different question. Am I understanding you correctly?

Q No, I believe I was asking the same question throughout. My concern is dealing with the impact of customers' demand on the water resource.

A Again, the resource recharged through perc ponds?

Q Yes.

A But the customers' demand or water use is not

going to be affected, in my opinion, unless there is reuse available that they can use for lawn irrigation to reduce that amount of consumption.

Q Well, yes, we have come to the conclusion that the existence of percolation ponds would have no affect, that has been your testimony, on the customers' demand for water.

Now I'm asking you in that different scenario, that is, a golf course using reclaimed water, whether with that configuration, would it have the effect of reducing the demand on the water resource?

A Yes, it would.

MR. PELLEGRINI: Thank you, Mr. Denny.

CHAIRMAN CLARK: Commissioners?

Redirect, Mr. Hoffman.

MR. HOFFMAN: Thank you, Madam Chairman.

REDIRECT EXAMINATION

BY MR. HOFFMAN:

Q Just a few follow-up of some of Mr. Twomey's questions to you, Mr. Denny.

A Yes.

Q Can you explain specifically how the absence or presence of uniform rates affect SSU's capital project and its capital expansion program?

A It makes it much more difficult to go with capital projects that are needed on some systems when a small

customer base is going to pay for that large capital investment.

Q And the answer you just gave me was under the scenario where there was not a uniform rate structure in effect, is that correct?

A That is correct.

Q Now, there was also some discussion with Mr. Twomey of environmentally mandated projects, do you recall that?

A Yes, I do.

Q All right. Does the absence or presence of uniform rate structure in any way affect the timing of environmentally mandated projects in terms of when the company begins its construction?

A Yes, I think, as I answered one of Mr. Twomey's questions earlier, is that with the absence of uniform rates, you've got a capital project you may want to negotiate with the regulatory agency to delay the project or come up with a different solution.

Q Again, in your opinion, does a uniform rate structure affect the customers ability to absorb the costs incurred by environmentally mandated projects?

A Yes.

Q How so?

A As I said, the customers on large capital

investment on a small system would definitely have rate shock if the charges were going to be absorbed by that customer base. But if they can be spread over our entire customer base, it is less of an impact on all customers involved.

Q Is it your understanding or your belief that the larger service areas of Southern States are subsidizing the investment in the smaller service areas?

A No, sir, I don't agree with that. As our engineering witnesses will confirm, that 74 percent of our capital investment are spent on 66 percent of the customers are in the ten larger service areas.

Q Your last statement was that 66 percent of the company's customers are in the ten largest service areas?

A Yes.

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

CHAIRMAN CLARK: Thank you. Exhibits?

MR. HOFFMAN: Madam Chairman, We would move Exhibit 73 and 74.

CHAIRMAN CLARK: Exhibits 73 and 74 will be admitted in the record without objection.

(Exhibits 73 and 74 received into evidence.)

MR. PELLEGRINI: Staff would move Exhibits 75, 76, 77, 78 and 79 into the record.

CHAIRMAN CLARK: We will admit without objection

75, 76, 77 and 79, but 78 is the late-filed exhibit, so it is subject to objection at a later date.

MR. PELLEGRINI: Did you say 77?

CHAIRMAN CLARK: No, it is 78.

We will go ahead and take a ten-minute break and then we will start with Mr. Terrero.

(Exhibits 75, 76, 77, and 79 received into evidence.)

(Recess.)

CHAIRMAN CLARK: We will go ahead and call the proceeding back to order. Mr. Feil.

MR. FEIL: Madam Chairman, I don't believe that Mr. Terrero has been sworn. Mr. Terrero has not been sworn.

CHAIRMAN CLARK: I'm sorry, I heard you. Mr. Terrero, would you please stand and raise your right hand.

Thereupon,

RAFAEL A. TERRERO

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

CHAIRMAN CLARK: Thank you. You may be seated.

DIRECT EXAMINATION

BY MR. FEIL:

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

A My name is Rafael A. Terrero, T-E-R-R-E-R-O, 1000

Color Place, Apopka, 32703.

Q Are you the same Rafael A. Terrero for whom prefiled testimony was filed in this case, direct testimony consisting of 17 pages?

A Yes, I am.

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

A No, I don't.

Q If I asked you the questions asked in this testimony today would your answers be the same as stated in that prefiled testimony?

A Yes, sir.

MR. FEIL: Madam Chairman, I ask that Mr. Terrero's prefiled direct testimony be inserted into the record as though read.

CHAIRMAN CLARK: Mr. Terrero's prefiled testimony consisting of 17 pages will be inserted in the record as though read.

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Rafael A. Terrero. My business address is 1000 Color Place, Apopka, Florida 32703.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?

A. I am employed by Southern States Utilities, Inc. (Southern States) as Manager of Environmental Services. Prior to holding this position, I served as Chief Engineer in charge of Engineering and Planning.

Q. COULD YOU BRIEFLY DESCRIBE YOUR DUTIES AS MANAGER OF ENVIRONMENTAL SERVICES?

A. As Manager of Environmental Services, I am responsible for all activities of the Environmental Compliance and Permitting Department including coordination of all Company efforts with environmental regulators, preparation, filing and processing of permits for all facilities statewide, and statewide monitoring, training and auditing of compliance with applicable laws, rules and standards. I also am co-leader of the Budget Evaluation Team which is responsible for directing SSU investments each year to projects based on an established priority basis. My department must maintain familiarity with all environmental issues affecting SSU's facilities statewide.

Q. PLEASE SUMMARIZE YOUR EDUCATION.

A. I received a Bachelor of Science degree with a major in Environmental and Urban Systems from the School of Technology, Florida International

University in December 1974.

I have completed courses in utility regulation sponsored by the National Association of Regulatory Utility Commissioners (NARUC) in conjunction with the University of South Florida. I have also participated in seminars sponsored by the Training Research and Education for Environmental Occupation (TREEO) center in conjunction with the University of Florida in reference to water and wastewater treatment facilities.

Q. WHAT ARE YOUR PROFESSIONAL AFFILIATIONS?

A. I am a Professional Engineer and have been registered to practice in the State of Florida since 1977. I am a member of the American Society of Civil Engineers, Florida Engineering Society, the American Water Works Association and the Water Environment Association. I also am a member of the AWWA Water Supply Committee, AWWA Reuse Committee, FEA Reuse Committee and am a former member of the Lee County Water Supply Authority.

Q. HAVE YOU PREPARED A RESUME WHICH REFLECTS YOUR QUALIFICATIONS AND PRIOR WORK EXPERIENCE?

A. Yes. Exhibit 80 (RAT-1) contains a copy of my current resume which identifies my qualifications and prior work experience.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE A REGULATORY AGENCY?

A. Yes. I have testified before the Florida Public Service Commission and before hearing officers in Hillsborough County on behalf of SSU in multiple dockets.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I will (1) provide information which supports Southern States' request to use the hydraulic flow method to calculate the used and useful levels for the Citrus Springs, Pine Ridge, Sunny Hills and Marion Oaks service areas; (2) provide facts concerning SSU's training and employee education activities which demonstrate how SSU's water and wastewater services are functionally related and cross county boundaries; (3) describe the activities of SSU's capital budget evaluation team ("BE Team") as evidence of the functional interrelatedness of SSU's land and facilities wherever in Florida they are located; (4) support SSU's breakdown of water customers into separate conventional treatment and reverse osmosis treatment service classifications; (5) support the movement of certain land parcels from plant held for future use to plant in service; and (6) demonstrate that not only is SSU's current mode of operation cost-effective, it also results in our ability to provide safe, efficient and sufficient service to our customers -- as demonstrated by the existence of only two consent orders outstanding at this time.

Q. DO YOU HAVE ANY PERSONAL KNOWLEDGE OF INFORMATION THAT CONFIRMS THE LEGITIMACY OF USING

THE HYDRAULIC FLOW ANALYSIS TO DETERMINE THE USED AND USEFUL LEVELS FOR SSU'S WATER TRANSMISSION AND DISTRIBUTION FACILITIES?

A. Yes. The hydraulic flow analysis has been a generally accepted method used by professional engineers to design transmission and distribution facilities for city, county and investor-owned utilities. I was employed by Deltona Utilities, Inc. ("DUI") from 1966 until DUI was purchased by Southern States. During my employment with DUI, I participated in the design of the water transmission and distribution facilities for the Citrus Springs, Pine Ridge, Sunny Hills and Marion Oaks service areas. I know that the facilities were designed using the hydraulic flow analysis method. Also, as indicated in my resume which is contained in Exhibit 30 (RAT-1), I have a great deal of experience with hydraulic flow analyses and from this experience I know that these analyses have been reliable.

Q. **DO YOU BELIEVE THE LOT COUNT METHOD IS AN APPROPRIATE METHOD FOR DETERMINING THE USED AND USEFUL LEVELS OF WATER TRANSMISSION AND DISTRIBUTION FACILITIES?**

A. No. As I indicated previously, it would not be possible nor permissible for a professional engineer to design water transmission and distribution facilities on a lot count basis. Therefore, I completely agree with SSU's use of the hydraulic flow analysis for determining the used and useful

levels for the facilities at Citrus Springs, Pine Ridge, Sunny Hills and Marion Oaks.

Q. PLEASE GENERALLY DESCRIBE THE SSU TRAINING AND EMPLOYEE EDUCATION ACTIVITIES WHICH DEMONSTRATE HOW SSU'S WATER AND WASTEWATER SERVICES ARE FUNCTIONALLY RELATED AND CROSS COUNTY BOUNDARIES.

A. Employees from the operations services (also called technical services) department, environmental compliance and permitting department and senior operations personnel based in Apopka provide technical training on water and wastewater operations and maintenance related topics. This training is provided predominately in Apopka (Orange County) as well as on site at individual plants or in central locations within each region. The location where particular training is provided depends upon the type and content of the training to be provided. Broad descriptions of the operations related training provided to SSU's operations personnel include the following:

1. Workshops for water and wastewater field personnel regarding updates on new or modified environmental laws or rules, for instance, those concerning backflow prevention procedures, cross-connection control requirements and procedures, lead and copper testing procedures, customer notification procedures and similar topics.

2. Environmental services also performs permit familiarization services for field personnel upon permit issuance, renewal and/or modification. This training keeps field personnel up to date on operating requirements, particularly where those requirements may deviate for a specific permit from the standard requirements. I will discuss this familiarization process later in this testimony.

3. Technical Services conduct certification preparation courses for field personnel preparing for licensing exams.

4. Technical Services conducts refresher courses for operators and operator trainees concerning plant processes, procedures, etc.

5. Personnel from the Environmental Compliance and Training departments as well as senior operators based in Apopka conduct safety training such as confined space entry training, chemical right to know classes, and electric safety training (lock-out/tag out), bloodborne pathogens, hazard communication, etc.

6. Technical Services is responsible for the conduct of training statewide, at times with the use of outside vendors (at no expense) and/or senior operators, regarding procedures such as trenching/excavation techniques, cross-connection recognition techniques, customer relations/communications techniques and the proper installation, maintenance, operation and selection of equipment such as chlorination equipment, paint spraying equipment, laboratory equipment, metering

equipment.

SSU also provides operations employees statewide with funding to attend courses in various topics necessary to obtain state licensing in areas such as:

Water Treatment (A, B, and C)

Wastewater Treatment (A, B, and C)

Distribution Systems (A, B, and C)

Collection Systems (A, B, and C)

Backflow Prevention/Tester

Backflow Assembly/Repair and Maintenance

Cross Connection Control Management

These courses are available either by correspondence course or in a classroom setting at local junior colleges or vocational-technical schools approved by either the Florida Department of Professional Regulation (in the case of water and wastewater treatment courses), or the Florida Water and Pollution Control Operators' Association or University of Florida TREEO Center in the case of distribution, collection, backflow and cross connection licenses. All requests for outside training and education are submitted to the local supervisor and then to the Human Resources department in Apopka (Orange County) for review, approval and processing for payment.

As described by Ms. Dale Lock, SSU's Human Resources

Administrator, in addition to this training, the Training Department located in Apopka provides management and supervisory training as well as training on customer service techniques, telephone etiquette, computer use, computer software, leadership, organizational development, team building and a variety of other topics. This training is provided to operations personnel as well as other SSU employees to improve management quality, work efficiency and service to our customers.

Q. I SHOW YOU EXHIBIT 80 (RAT-2). WAS THIS EXHIBIT PREPARED BY YOU OR UNDER YOUR DIRECTION AND SUPERVISION?

A. Yes, it was.

Q. COULD YOU BRIEFLY DESCRIBE THIS EXHIBIT?

A. This exhibit provides a list of 175 safety training classes held by SSU in 1993 and 1994 as well as safety and equipment handling classes presented by outside vendors on SSU's behalf, at no cost to SSU. More than 1,300 SSU employees statewide attended these classes in 1993 and 1994. The exhibit also contains the same information for 1995, year to date, including the number of man hours associated with employee attendance at these training sessions. These safety and training classes are held both in Apopka and at SSU offices throughout Florida. The classes often are attended by managers, operators and/or field personnel who are based at different systems throughout Florida. This list does not include additional

training which occurs between operations personnel such as the training of SSU operators at Lehigh in the use of ammoniation equipment by SSU personnel from Marco Island or the training provided by SSU's operators formerly based at Venice Gardens of operators located at Marco Island in the proper operation and maintenance of reverse osmosis equipment.

Each of these functional relationships of an operational character are part of the framework which, only when consolidated with the rest of SSU's utility operations, make up SSU and the water and wastewater services provided to each of our customers.

Q. COULD YOU PLEASE FURTHER DESCRIBE THE STATEWIDE PERMIT FAMILIARIZATION PROCESS?

A. The permit familiarization process is a continuous process throughout the year involving multiple departments and employees located state-wide. The process consists of the following: permit applications are prepared and submitted to the appropriate authority by the ECPD. Permit negotiations are conducted by the ECPD and Legal Department in consultation with Operations and/or Engineering personnel as appropriate. Upon receipt of a permit: (1) the ECPD reviews the permit terms and conditions; (2) the ECPD designates responsibilities for compliance to appropriate SSU departments and personnel and distributes the permit to all effected departments and the appropriate system; (3) the ECPD provides written designations of responsibilities including explanations of

any terms and conditions which exceed or are in addition to standard terms and conditions; (4) the ECPD communicates verbally with appropriate Engineering and Operations personnel concerning permit terms and conditions; (5) the regional manager conducts meetings with appropriate operations personnel both upon receipt of the permit and subsequent to meeting(s) with ECPD personnel to verify compliance; (6) the ECPD meets in person with appropriate operations personnel including the regional manager, area supervisor and plant operators -- the frequency and number of such meetings held will depend on the complexity of the permit terms and conditions; and (7) after review and agreement by all concerned, ECPD, if necessary, will contact regulatory agency to propose desired changes.

Q. YOU PREVIOUSLY REFERRED TO A CAPITAL BUDGET EVALUATION OR "BE" TEAM. DOES THE EXISTENCE OF THIS TEAM SUPPORT A FINDING BY THE COMMISSION OF THE FUNCTIONAL INTERRELATIONSHIP OF SSU'S LAND AND FACILITIES?

A. Yes. The BE Team is an example of the functional interrelationship between SSU's land and facilities used to provide water and wastewater service to our customers. The BE Team is comprised of the Regional Managers, the General Manager-Operations , the Manager of Facilities Analysis, the Manager of Plant Accounting, all engineers and other SSU

personnel. I lead the team together with the General Manager-Operations. The team is responsible for formulating SSU's annual and 5-year capital budgets and presenting the budgets to Company management. Once approved, the budgets are presented to SSU's board of directors for final approval. From its inception, the BE Team has been responsible for identifying the capital needs of every water and wastewater facility, wherever in the state the facility may be located. The primary areas of focus in determining the types and amount of capital improvements to be made (within the limitations on capital available for investment) were the size of the customer base served by a particular system, the level of prior investment in the system and the existing rates of the system. Therefore, prior to statewide uniform rates, the presence of representatives of the legal and rates departments was more critical to the operation of the BE Team. With the advent of uniform rates, these factors are less important so that investment decisions can be made based on the need for a particular investment to protect the health and safety of our employees, customers and the environment, wherever in the state our land and facilities are located (again, within the limits of the capital available for investment). In short, the BE Team acts on the basis of SSU's capital needs statewide, regardless of county boundaries or specific system histories.

Q. WHAT OTHER SERVICES ARE PROVIDED BY EMPLOYEES BASED AT THE COMPANY'S HEADQUARTERS?

A. The physical plant and lines in the ground would not even exist but for the services provided by other SSU personnel including the environmental compliance and permitting ("ECPD") departments which secure the permits; the legal department which secures the franchise and zoning approvals; the engineering department which designs the facilities; and the construction management area which oversees construction, etc.

These Apopka based departments provide such services for all of SSU's facilities throughout Florida. The consolidation and coordination of the efforts of these Apopka departments enable SSU to provide the best services to SSU's customers. For instance, the coordinated efforts of experts from each of these departments results in SSU's ability to maintain a rules tracking team consisting of members from these areas and operations personnel, as further described by SSU witness Kowalsky. Services like this rules tracking service only can be provided by large utilities like SSU which have the experience, expertise and economic support to accomplish this service. Also, our efforts through the rules tracking team have assisted SSU in keeping our costs as low as possible through input in the rulemaking processes at the various agencies. As Ms. Kowalsky also notes, SSU's ability to attract and retain professionals in the environmental compliance, permitting and legal areas has given us the expertise necessary to persuade regulators to modify proposed rules, permit requirements, or other requirements which they might have imposed on us.

An example is the quick response SSU was able to take when representatives of the St. John's Water Management District contemplated requiring SSU to relocate our wells serving customers in the Deltona Lakes service area. A massive relocation of these wells could have cost SSU in the neighborhood of $20 million. We have forestalled such a requirement to date by working with the District and obtaining their co-funding of a comprehensive water study instead. Services like the rules tracking service are essential ingredients of SSU's water and wastewater service to our customers.

Q. WILL ALL OF THE ACTIVITIES AND SERVICES PROVIDED BY YOUR DEPARTMENT AND THE BUDGET EVALUATION TEAM BE PROVIDED TO THE BUENAVENTURA LAKES, LAKESIDE, SPRING GARDENS AND VALENCIA TERRACE SERVICE AREAS?

A. Yes. The Buenaventura Lakes, Lakeside, Spring Gardens and Valencia Terrace service areas will be incorporated into SSU's utility system and receive all of the services and activities from my department and the BE team which I previously have described.

Q. DO YOU HAVE ANY COMMENTS CONCERNING SSU'S DIVISION OF WATER SERVICE CLASSIFICATIONS INTO DISTINCT CLASSES FOR CUSTOMERS RECEIVING WATER FROM CONVENTIONAL VERSUS REVERSE OSMOSIS

TREATMENT FACILITIES?

A. Yes. I agree with the division of customers into two distinct service classifications depending upon whether they receive water from conventional versus reverse osmosis facilities. The principal distinction between these two service classifications is the type of supply source which must be tapped to provide them water. Conventional treatment is all that is necessary to bring fresh water supplies regardless of process into compliance with standards. On the other hand, reverse osmosis treatment is required to meet these standards in areas where the fresh water supply is absent and the predominant water supply is brackish. All things being equal, the cost of building and operating reverse osmosis facilities will be much higher than the cost of building and operating conventional treatment facilities.

A review of the plant in service additions included in this proceeding for the Marco Island and Burnt Store reverse osmosis facilities, approximately $18 million and $3.7 million for approximately 6,100 and 700 customers, respectively, is an indication of this fact.

Q. SSU IS PROPOSING THAT CERTAIN LAND PARCELS PREVIOUSLY IDENTIFIED AS PLANT HELD FOR FUTURE USE BE MOVED INTO PLANT IN SERVICE. COULD YOU IDENTIFY THESE PARCELS AND EXPLAIN WHY MOVEMENT INTO PLANT IN SERVICE IS REASONABLE?

A. SSU is proposing that land we own in the following service areas be moved from plant held for future use into plant in service: Citrus Springs ($3,400) (water); Deltona Lakes ($33,000) (water); Marco Island ($220,855) (water); and Marion Oaks ($9,900) (water).

The Citrus Springs site has been used to drill a test well to make sure that the water quality and quantity will meet standards set by regulations. The drilling of the test well assures that this site will be used at a later date and the existing distribution mains installed to serve existing customers are not oversized due to a central water treatment plant facility. This site has been strategically located to serve the existing customers with the most efficient and economic water distribution system.

The Deltona Lakes site has also been drilled with a test well in order to provide existing customers with the most efficient distribution system. Since the system was designed in 1967, this site was held for future use. The evolution of new regulations has made this site an exemption of the 500' radius for wellhead protection since the drilling took place prior to adoption of the rules.

The Marco Island site is a raw water supply that has been permitted by the Corps of Engineers and permitting will be pending the approval of a transmission line to the main in State Road 951. An agreement has been reached with the agricultural interests regarding the easements to install the line. This site will also serve as a mitigation for wetlands impact due to

new regulations for our existing water supply.

The Marion Oaks site will be used for a new well due to relocation of the existing well. The existing well was installed at the inception of the Marion Oaks plant and regulations were more lenient then with only a 200 foot setback requirement from possible pollution sources. As of today, we have not observed any problems with the well, but FDEP has required the relocation of the facilities so the land will be used for the new well site and should be included in rate base.

Q. ARE THERE ANY OUTSTANDING CONSENT ORDERS REQUIRING SSU TO TAKE CORRECTIVE ACTION?

A. There is one consent order for the Burnt Store water facilities which requires SSU to eliminate the surface water discharge of the brine reject from the reverse osmosis treatment process by April 1996. The costs associated with complying with this consent order -- construction of an injection well -- are included in the 1996 projected test year. Currently, we anticipate timely compliance.

There is a Putnam County consent order outstanding for several water plants. All work required under this consent order has been completed with the exception of the Wootens plant where land acquisition has been our hurdle to complete the improvements.

We also have an outstanding administrative order from the United States Environmental Protection Agency for an exceedance of toxicity

levels at our Woodmere facility. We have a toxicity reduction evaluation in process and expect to be able to comply with the February 1996 deadline imposed by the order.

SSU believes this very limited number of outstanding consent orders and administrative orders is evidence of the safe, efficient and sufficient service we are providing to our customers.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes.

BY MR. FEIL:

Q Mr. Terrero, did you also have attached to your prefiled direct testimony some exhibits, those identified as RAT-1, consisting of 6 pages, and RAT-2, consisting of 22 pages?

A Yes, I did.

Q Do you have any changes to those exhibits?

A No, I don't.

MR. FEIL: Madam Chairman, I would ask that Mr. Terrero's RAT-1 and RAT-2 exhibits be identified as a composite with the next exhibit number.

CHAIRMAN CLARK: That next exhibit number is Exhibit 80.

(Exhibit Number 80 marked for identification.)

MR. FEIL: Thank you, and I tender the witness for cross.

CHAIRMAN CLARK: I take it he has no summary.

MR. FEIL: He does not.

CHAIRMAN CLARK: Okay. Mr. Riley.

CROSS EXAMINATION

BY MR. RILEY:

Q Good afternoon, Mr. Terrero.

A Good afternoon.

Q I would ask that you direct your attention to Page 4 of your prefiled direct testimony, and down on Lines

19 through 22 you talk about engineers cannot design water transmission and distribution facilities on a lot count basis, is that correct?

A That's correct.

Q Does the PSC suggest engineers use lot count method to design their facilities?

A I believe what I was trying to portray here is not a way to design it, but actually the way that you're using used and useful.

Q So, isn't it correct that engineers have to design a system based on standard engineering practices?

A That's correct.

Q Isn't it correct that engineering practices used for designing water transmission and distribution systems should remain the same no matter how much the customers are charged for their water service or how much money the utility is making?

A Come back with that question again, please.

Q Well, wouldn't an engineer who is designing a transmission distribution system design that system without regard to any allocating of costs between current or future ratepayers?

A I think they would design it in accordance with the design standards based on the health and welfare of the customers.

Q So that would be based on the engineering standards?

A Yes.

Q Isn't it correct that the lot count method is not an engineering design, but a method that the PSC uses to fairly allocate utility costs between current and future ratepayers or customers?

A Yes.

Q Okay. I would have you move on in your prefiled direct testimony to Page 15, where you begin talking about placing land -- certain items for future use into plant in service. And on Page 15, I guess pretty much around Lines 1 through 11, you talk about a test well site at Citrus Springs, is that correct?

A That's correct.

Q Isn't it correct that Citrus Springs Systems is one of the Deltona systems?

A Yes, it was.

Q And just like the Sunny Hills system, this is not a densely developed area, is that correct? That the number of undeveloped lots far exceed the number of developed lots?

A That's correct.

Q Subject to check, isn't it correct that the ratio is about 1,892 connections to 11,667 total available lots, does that sound about right?

A I couldn't tell you that. I didn't count the lots.

Q Excuse me, would you repeat that?

A I didn't count the lots.

Q Did you not come from the Deltona System when you joined SSU family?

A Yes.

Q Do the figures I mentioned to you comport with your understanding of that particular system?

A No. I believe Citrus Springs is around 35,000 lots.

Q Excuse me?

A 35,000.

Q Total lots available?

A Yes.

Q And what do you believe are the total number of developed lots?

A I couldn't tell you right now.

Q Approximately?

A 1,500.

Q 1,500. Thank you. Okay. On this same Page 5, Lines 7 through 8, you state the test well will be used at a later date. Do you know what that later date is?

A At a later date could be in a couple of years. Actually presently we are going with an expansion to the

Citrus Springs system. And in 1996, we are supposed to have a storage tank installed together with high service pumps. Later on we are going to go ahead and put that well in service into the tank to keep up the level in the tank. See, the utility saves about six different sites on that master plan, and the way really that you go with the standards is you don't go ahead and design a system without having sites. So the utility actually made sure that we had those sites available and then we are using as we go along.

Q But you do say it's in excess of two years into the future, if then, when this site will actually be utilized, is that correct?

A No, the site will be utilized in 1996. We already have approved plans to install a storage tank and high service pumps on that site. On that same site you have a well that might be used to replenish the tank.

Q But the actual well you say will not be used until some uncertain date in the future?

A That's correct.

Q Isn't it correct that the current demand of 707 gallons per minute does not need another new well, because there is now approximately 1,500 gallons per minute well capacity in the system?

A Would you repeat the question, please.

Q Is it correct that the current demand of 707

gallons per minute, which I understand is the '96 projected without a margin of reserve, does not need another new well, because the 1,500 gallons per minute well capacity is currently available?

A I don't know. The 700 gallons per minute that you talking about, is that average day, maximum day, peak hour, and all average, what is it?

Q To my understanding it's maximum day without a margin of reserve.

A Well, if you have a 700 per minute for maximum day, you're not accommodating the peak hour, so how are you going to supply the peak hour flows?

Q Do you not have a ground storage tank at this facility?

A No, sir.

Q No storage?

A No storage at this facility. The only storage you have is the hydropneumatic tanks, and that is not considered storage.

Q Also, on Page 15, Lines 18 through 22, and I think it goes over slightly into Page 16, you talk about the raw water supply site for Marco Island, is that correct?

A Yes, sir.

Q Now, in your deposition didn't you say that SSU does not have an easement to lay the raw water main to Marco

Island, and that the project will probably be done in 1997?

A That's correct. I say that we will probably start the project in 1996/1997, we are in the process of acquiring easements, and that is what we are requesting. The application with the water management district is completed with a section of the easement, and we feel that we have put a lot of money on this site. The utility has been really very forward in going ahead and acquiring this land back in '84 to make sure that we have a water supply. So what we are requesting is that we be treated like any other utility, like a power utility. You have a case in 1980 of Gulf Power where a site which was going to be used -- this is back in 1980 -- a site that was going to be used in 1995 was granted about $1.5 million for this site, and then at the same time it was not known if they were going to use the site in 1995. And I still don't know if they have used it.

Q Nevertheless, existing customers cannot use any water that comes from this new raw water supply site in 1996, isn't that correct?

A No.

Q Yes, that is correct?

A Not for 1996, but --

Q But after '96?

A We are going to start the construction in 1996 and complete in 1997/1998. What I'm saying is the existing

customer will benefit with the water supply that we have there. You know, you have to really see what the sites mean to our customers down in Marco. The reason being is, you know, if we don't get -- in the last rate case we got blown out of the ground and we actually didn't get anything for this site. I was very upset with that issue. But, you know, I've always been a proponent of the customer being the first priority, so actually we look -- if I could go one more minute.

Q I really feel satisfied with your answer. I guess if you want to elaborate, but I feel like my question was answered.

A What I want to say is that actually we invested this money actually for the existing customers, not even the future customers. Because as a company if we don't make the revenue that we have to make, what we are going to try to do, or I will advise the management to do is sell this property, and then when we come back, we buy this property again. The condemnation costs will be probably three or four times this 160 acres. We just bought one site of 212 acres for $8 million, so actually the $200-and-something that we are talking about here is peanuts.

Q Well, Mr. Terrero, though, if good planning practices calls to have this plant held for future use, to have it available to meet the future needs of new customers,

can the utility not recover its investment in these properties with the use of AFPI, allowance for funds prudently invested?

A I don't think so.

Q And why not?

A Because that is a cost that you are going to acquire in the future. You don't know if the customers are going to be there to actually bill those customers for it, and I'm not an expert in AFPI.

Q Are you aware enough of AFPI to know that there is an interest element built into that charge that over time the utility has the right to collect a larger and larger sum over some fixed term?

A I believe the utility has invested the money in that line already and should be granted the money that we have invested. Like I said, we can always opt to sell the property and then go back and try to acquire it again, and then we will incur a lot of money for the existing and future customers. I think what you're saying is don't be prudent and buy this land.

MR. RILEY: No further questions at this time.

CHAIRMAN CLARK: Mr. Twomey.

MR. TWOMEY: Yes, ma'am, thank you.

CROSS EXAMINATION

BY MR. TWOMEY:

Q Good afternoon Mr. Terrero.
A Good afternoon.
Q On the hydraulic flow analysis, you're sponsoring that for just four systems, is that correct?
A A portion of it, yes, sir.
Q I'm sorry?
A A portion of it.
Q Now, based upon my reading of your testimony, you are promoting the hydraulic flow methodology, if I understand you correctly, because you personally were involved in the engineering of those systems, is that correct?
A That's correct. And I think that's the standard design to design the system, that's why I say that it should be done that way.
Q Okay. But presumably if it's true for those four systems that you are personally knowledgeable of, then it would follow, would it not, that it should be true for all systems?
A That's correct.
Q So this is a foot in the door approach, correct?
A What do you mean by that?
Q Well, I mean if the Commission were to accept your analysis that the hydraulic flow methodology was appropriate for four systems, then the next case it would be all of

them, right?

A What I'm saying is that is the standard way of design a system that is the most economic for our customers, and that's the way we design it.

Q Okay. But, again, as pointed out by Public Counsel, you can design -- there is nothing to preclude your company or any other utility from designing a system using a hydraulic flow analysis and still have rates set on a different methodology, correct?

A I don't follow your question.

Q You can have -- isn't it true that you could have a system designed -- you could design a system on hydraulic flow methodology, right?

A That's correct.

Q And there is nothing to stop the Public Service Commission, not as engineers, but as economic regulators from establishing rates and calculating used and useful investment on a different methodology. For example, the connected lots, right?

A I don't agree with the connected lots. I agree with the flows and the water distribution system, and I think the Commission has a staff that can do that. They can evaluate that and come up with the right answer. I think counting lots is more of an accounting issue, it's not an engineering issue.

Q Okay. And the proposal that you're offering results in a higher percentage of used and useful for those systems, right?

A It very well could be.

Q No, I'm sorry, let me ask you this. Did you propose -- do you or not know whether for the four systems you have offered this, whether or not it results in a higher used and useful calculation?

A I don't know that. I didn't count lots. All I'm saying here is that if you're going to design the system you should design it with a water distribution analysis. The way that real engineers do it. If you want to go to Mickey Mouse, then you do it counting lots. But real engineers go to the real stuff, they go and take Cybernet (phonetic), or any hard cross analysis and really do it the right way. Otherwise, it's not done right.

Q Okay. Let me ask you about the lead exceedence at Beacon Hill. Have you had an opportunity to do anymore research of that situation since your deposition?

A A little bit more, yes, sir.

Q Okay. Let me ask you first, do you know whether or not your company has conducted or has assisted with testing at the Beacon Hill and Cobblestone plants, tests that were performed in March of this year?

A I didn't hear your question.

Q Did SSU have conducted water analysis on the Beacon Hill and Cobblestone plants in March of this year?

A Yes, we did.

Q Okay. And have you received the results on those tests?

A Yes, we did.

Q Okay.

A As a matter of fact, we conducted the tests earlier than were supposed to be done.

Q Okay. They were conducted in March?

A Yes. We could have delayed until June.

Q Okay. On what basis? On what basis could you have delayed until June?

A We have until June to take the samples.

Q Now, I'm advised that the tests you conducted in March of 1996 showed that some sites in Beacon Hill again exceeded the lead action level, is that correct?

A That's correct.

Q At how many sites, Mr. Terrero?

A I think we took 50 samples, and there was seven exceedences, and those exceedences are in action level. I want to mention to the Commissioners here that this is not the only system in the State of Florida that has actually exceeded copper and lead. I happened to get a report from the Department of Environmental Regulation in order to make

sure that I had answered Mr. Twomey's questions, and actually of 2,136 systems --

MR. TWOMEY: Madam Chairman, that answer is not responsive to my question. If SSU's counsel wants to ask him that on redirect, I would just as soon that we have the witness do his redirect on SSU's time.

THE HEARING OFFICER: Mr. Terrero, I do agree that I think that you are about to go beyond answering his question, and it is appropriate for redirect.

MR. TWOMEY: Okay, sir. Thank you. You can do that later.

BY MR. TWOMEY:

Q You said that there were seven lead exceedences out of 50 sites, is that correct?

A Of 50.

Q Yes, sir, 50. And what were the exceedence level is 15 -- what is it, what is the exceedence level for lead?

A 15 micrograms per liter.

Q 15 micrograms per liter?

A That's correct.

Q And what were the exceedences for the seven?

A I couldn't tell you the exact levels that we had in there, but we exceeded seven, so will be the exceedences that we had actually that triggered the action level.

Q Okay. And how about the -- I'm advised as well

that the copper action level was exceeded at Cobblestone, is that correct?

A That's correct.

Q And how many of the exceedences were there of how many tests?

A We had seven out of 43.

Q Seven of 43?

A Right.

Q Okay.

A Could I mention to you that we are requesting from Duval County to put these two systems together, and since you made me kind of work in this area here, I went ahead and talked to them, and if we put them together, we don't exceed any levels, any action levels. How do you like that?

Q I don't know, let's explore that. It's my understanding that when you do a test that an exceedence level is based on the sample, the tap drawn at a specific location. Isn't the chemical analysis done on the specific homes or taps?

A Yes, it's done at the house and it's done as the first draw.

Q Sir?

A As first draw. So you have to have it six hours in the mains or in the house, then in the morning you take a sample.

Q Okay. And you have just testified that out of 50 samples there were seven that exceeded the lead level, correct?

A That's correct.

Q So how does having some type of -- my understanding was that the Cobblestone and the Beacon Hill systems were already interconnected, isn't that true?

A They are interconnected, yes, sir.

Q Okay. So what was your point that if you joined them together that there would not be any exceedences?

A What I'm driving at that we took 50 samples in the Beacon Hill area and we took 43 samples in the Cobblestone area. If you add those two together, you've got about 93 samples, and if you take eight samples of lead that doesn't exceed 10 percent, if you take nine samples of 93, that doesn't exceed the copper level, either.

Q I see. So if you get them treated -- that there is a concern, a legitimate reporting concern now by the number of percentage of exceedences, but if you get a change in the paperwork that that problem will disappear, is that what you're testifying to?

A That's correct.

Q I see.

A The action level won't be triggered.

Q Because the lead exceedences are occurring just in

the Beacon Hill area, aren't they, Mr. Terrero?

A That's correct.

Q And the copper exceedences are occurring just in the Cobblestone area, right, Mr. Terrero?

A That's correct.

Q Right?

A Yes.

Q And what I hear you testifying to is that if you get the health department in Duval County to let you average the tests in Cobblestone, where only copper exceedences are occurring, with the tests in Beacon Hill, where only the lead is occurring, that on paper on average everything will be okay, is that right?

A That's correct. It should be noted that the water management district treats these two systems as one system, it's under one permit. And I believe the PSC also has them under one system.

Q One system? Did you use the right word? One system?

A One utility.

Q One utility?

A That's correct.

Q Okay. I thought SSU was a utility and a system?

A We are one utility, and our central point is in Apopka.

Q Now, irrespective of the logic of averaging -- so that paper exercise you just testified to would be one of the advantages that Mr. Mynatt would gain from having the functional interrelatedness that you're offering, is that correct?

A I don't follow your statement or question, I don't know what it is.

Q Well, we'll let is pass. Did you hear Mr. Mynatt's testimony this morning?

A No, I wasn't here, I'm sorry.

Q There is a requirement, is there not, that when you exceed the lead level, the action level, that you are to engage in public education, is that correct?

A Yes.

Q Okay. Now, when I asked in your deposition on April 18th, 1996, you told me that you didn't know whether the company had strictly complied with the Florida Administrative Code rule requirements, correct?

A Correct.

Q Have you had an opportunity to ascertain whether they have?

A Yes.

Q And did you find that you had, Mr. Terrero, or that there was some instances where you did not comply?

A We had a notification that we were late.

Q Sir?

A We had a notification that we were late. But, you know, one thing that you have to be aware of is that we have notified the people before. We have not -- in the two samplings that we had before, we did not exceed the levels and we were supposed to report on 12/21/94, we didn't send it out until May 1995.

Q You were supposed to report in December of 1994?

A That's correct.

Q And you didn't do it that until May?

A That's correct. But it should be noted also that we are treating for the exceedences that we have. We have a system in place to treat the lead and copper.

Q Yes, sir. But is that why you think they have -- the Department of Environmental Protection has rules passed that require public education on lead, or is it so people can gauge whether they want to drink the water or not?

A I think that the public notification was late and that's all there is to it. You know, it fell through the cracks. We notified everybody in November that we had to do it and it just fell through the cracks.

Q Okay. Now, let me ask you this. When you got around to doing it in May, did you follow each and every one of the requirements of the rule?

A Well, we went and took water quality parameters on

12/6/94, we went to customer notification to those who failed and those who passed 11/94. We inserted notices in customer bills in 5/01/95. Submitted information to regulatory department's in 5/02. Delivered pamphlets and brochures on 5/03. Submitted the public service announcement to radio and television on 5/02. And, actually the corrosion control study was supposed to be completed on April 24, '95, and we actually submitted it March 3rd, 1995. So we were ahead. We were proactive on that one.

Q Let me ask you this. Isn't it true that the rule specifically requires that you will print a statement about lead exceedence on the bill itself in large print?

A Yes.

Q And my question is did you do that?

A I have one notice here that we have it. I don't know if all the bills will have it, but I have one notice here that does have the note. And it says, "Some homes in your community have elevated lead levels in their drinking water. Lead composes a significant risk to your health. Please read the enclosed notice for further information." And I believe the information was enclosed.

Q I'm sorry, is it your testimony that that statement was printed on the bill itself?

A Here is a copy of the bill.

Q And can you testify that the company printed that

notice on all the bills during the period required?

A I couldn't tell you that.

Q Well --

A But I imagine if it went in one, it's a computerized system, so it should have gone in all of them.

Q Yes, sir. I attempted to ask you to check on that. So you don't know, is that your testimony?

A Well, what I'm saying I didn't check all the bills to see if we have all the notices in every bill. I randomly picked one and we had it on it.

Q Okay. If Mr. Mynatt had all of his bills for the period, and his bills don't have that statement on there, isn't that evidence that you didn't have it, then?

MR. FEIL: Objection, asking the witness to evaluate the evidence. I mean, Mr. Terrero has already said that he didn't know whether or not every bill had it on. How many times do we have to have him answer this question?

BY MR. TWOMEY:

Q Did you deliver pamphlets to the public schools and local schoolboards?

A I think there is a kindergarten school, and we delivered pamphlets there, yes, sir.

Q I mean, to all of them in the area?

A There is only one.

Q Okay. Daycare facilities?

A Yes, sir.

Q Pediatricians?

A I don't know about that. But we delivered -- most of our facilities are domestic homes, and the only one that we had was the daycare, and we delivered to the daycare.

Q The exceedence level that just occurred in March of 1996, have you started an education program with respect to that exceedence?

A We sent -- usually all the verbiage of it has to be approved by the health department, and actually the health department has it in their hand. We just got back, I believe Friday we got back from them some changes in the verbiage, and we will be sending it out. The next billing time is May 20th, so at that time we will be sending the information. Even though if we joined those two systems, it doesn't have to be sent, we will be proactive and send it out anyhow.

Q Okay. Mr. Terrero, I want to ask you some questions about the Enterprise system. Now, I took from -- and this is related to your -- let me ask you first, you talked at some point, I think on Pages 10 and 11, about the budget evaluation, the capital budget evaluation team?

A Yes.

Q And you suggest on Page 11, apparently, that with uniform rates that the job of the budget evaluation team is

easier because you don't have to apparently involve your legal department and your rate department, is that correct?

A Actually, the rate department. I might have said legal, but rate department would be the one to --

Q Okay. I just wanted to be sure I understand you. You say starting at Line 5 of Page 11, "From its inception, the BE team has been responsible for identifying the capital needs of every water and wastewater facility wherever in the state the facility may be located. The primary areas of focus in determining the types and amount of capital improvements to be made (within the limitations on capital available for investment), were the size of the customer base served by a particular system, the level of prior investment in the system, and the existing rates of the system. Therefore, prior to statewide uniform rates, the presence of representatives of the legal and rates department was more critical to the operation of the BE team. With the advent of uniform rates these factors are less important, so that investment decisions can be made based on the need for a particular investment to protect the health and safety of our employees, customers, and the environment." And you go on. And my question to you is that with uniform rates is it easier because you don't have to worry about the immediate impact on the customers of that system in terms of their rates?

who decided to take the receivership of that system. Do you

A Uniform rates, I feel that uniform rates help all the small communities with all the improvements that has to be made. But, you know, in the same token, you've got to -- I think somebody mentioned it before, 70 percent are for 66 of our customers in 10 of our largest utilities. So actually the uniform rates will help the small utilities to be able to afford to -- like we are talking about these lead and copper facilities, and, for example, if you have, let's say in the Beacon Hill area, if for any reason we have to take out the outfall that we have on St. Johns River, it is going to be an expensive proposition. And we are talking -- I think I mentioned about 7 or $8 million, and it will be a real rate shock for those people. So you will distribute that at Spring Hill, Citrus Springs, that area. We are talking about some sinkholes out there. So, you know, because you have the water today doesn't mean that you're going to have it tomorrow. There is new regulations, there are things that come up that you don't expect to come up and they do come up.

Q Okay. Now, you are in receivership of the Enterprise system that is near the -- I guess near the Deltona area, is that correct?

A Yes, sir.

Q Now, I asked you during your deposition whether -- who decided to take the receivership of that system. Do you

recall?

A It was Deltona, Deltona Utilities.

Q No, I'm sorry. I asked you who in your company made the determination that you would act as receiver for that system?

A I don't recall. It was actually a receivership already when SSU took the systems. That was done during Deltona times.

Q So you got it as part of your deal of taking -- am I correct in understanding that you got the receivership when you purchased the Deltona system?

A Yes.

Q Okay. So, presumably you knew what you were getting into, right?

A Yes.

Q That was part of deal?

A Yes.

MR. FEIL: Excuse me. By "the deal," was Mr. Twomey referring to the acquisition of Deltona Utilities, is that correct?

MR. TWOMEY: Yes.

MR. FEIL: Thank you.

BY MR. TWOMEY:

Q Is that correct?

A Yes.

Q Now, someplace in your deposition I think I recall you saying that there is some $750,000 worth of rehabilitation that has to be done to the Enterprise system to bring it up to par, is that correct?

A What has to be done is the effluent disposal facility that we have there is not percolating anymore, and in order to bring it to standard, what would need to be done is to extend a forced main from there to Deltona, and it is approximately $750,000, yes.

Q Okay. And I thought I also recalled you saying that it would be your recommendation not to make those repairs and expend that money unless you could have an assurance of uniform rates, isn't that correct?

A That's correct.

Q And why?

A Because the people who live there, it's a small customer base, and it's going to be a real rate shock. We are talking a lot of money for a system that only has about 200 customers, I believe it is.

Q I see.

A Subject to check.

Q I see. Now, and you don't think it would be fair for those people to have to pay for the repairs necessary to bring their service --

MR. FEIL: Objection. I don't believe Mr. Terrero

has testified about fairness.

BY MR. TWOMEY:

Q You think the rates would be too high if they had to pay the cost of those capital improvements themselves?

A That's correct.

Q Okay. Are you aware that counties are obliged to act as receivers of last resort if private utilities don't act in their stead?

A I'm not.

Q You say in your deposition that -- I think you said, did you not, that SSU wouldn't have made the large capital expenditures in Palm Valley had it not been for the expectation of having uniform rates, is that correct?

A I think I mentioned something like that, yes.

Q Do you recall off the top of your head, Mr. Terrero, how much money SSU expended in improving the Palm Valley system?

A I think it was close to a million dollars, subject to check.

Q Wasn't it, in fact, in excess of a million dollars?

A I couldn't recall. I think it's $1 million, something like that.

Q Yes, sir. Do you have available to you -- I'm sure one of your attorneys would. Could I ask you to look

at Volume 2, Book 4 of 4 of the company's MFRs.

COMMISSIONER KIESLING: Mr. Twomey, do you have a copy of that page for us?

MR. TWOMEY: I don't have it, no.

COMMISSIONER KIESLING: Okay. I had thought that at the prehearing I had asked everyone -- perhaps you had left before that -- asked everyone to have a copy of the pages of the MFR that they were going to use.

MR. TWOMEY: I probably did, and I apologize. And not an excuse, but a reason is that I didn't find this page until about an hour ago, okay. So I apologize for that. And I will endeavor to do better Wednesday.

BY MR. TWOMEY:

Q Do you have that, sir? Would you turn to Page 202?

A Okay.

Q That page purports to show plant-in-service additions by project from the last rate case through 1996, correct?

A That's correct.

Q Now, for Palm Valley it shows, does it not, for the water system for the year 1985 through '91, total expenditures of a subtotal of 300,642, is that correct?

A That's what it says, yes.

Q Okay. And also for water for the period 1992 to

1994, it shows expenditures of 872,359, correct?

A That's correct.

Q And the largest single capital expenditure that occurred during that period is the water distribution/system improvement one under regulatory mandate, which cost 823,467, correct?

A Correct.

Q It shows the year 1993, and my question is do you know whether the project was completed in 1993 or it was --

A I don't know. I think that Dennis Webster will be able to answer that question for you.

Q Mr. Webster can?

A Yes.

Q Okay. So you said in your deposition, did you not, that you, or SSU, would not have made these large improvements in Palm Valley had you not the expectation of having uniform rates, correct?

A That's correct.

Q There are only some 199 or 200 or so customers in Palm Valley, isn't that correct?

A Subject to check, yes.

Q It's a small system roughly on a par with Enterprise, is it not, Mr. Terrero?

A Something like that, yes.

Q Okay. If you know, sir, tell me, isn't it true

that the relatively large capital expenditure here was required of Palm Valley because you essentially replaced the entire water distribution system?

A That's correct.

Q To include the meters?

A No, I don't believe the meters were changed.

Q But you essentially replaced the entire distribution system because of the failings in the old system, correct?

A Correct.

Q And isn't it true that you abandoned the water treatment facilities that were in existence at Palm Valley and constructed a pipeline to -- in other words, to take purchased water from Intercoastal?

A That's correct. The amount of water that we have there was insufficient, and the quality of the water wasn't of good quality to provide the customer what we needed.

Q Okay. Do you know of your own personal knowledge whether SSU's personnel ever told the customers of Palm Valley that they shouldn't worry about the rates resulting from those large capital improvements because they would be dispersed across the state through uniform rates?

A I don't know if we did or not.

Q Okay. Did you make any such statements to anybody?

A I don't think I did.

MR. TWOMEY: I apologize for doing this again, Commissioner Kiesling, but this one I just found at the same time.

BY MR. TWOMEY:

Q I want to ask you very quickly, Mr. Terrero, to look at Volume 2, Book 1 of 4 of your MFRs, and refer to Page 15.

MR. FEIL: I'm sorry, Mr. Twomey, you will have to wing it.

MR. TWOMEY: I will loan him my copy.

BY MR. TWOMEY:

Q And I would ask you to look at, I guess, what is line or System 98, near the bottom of the page, sir, for Palm Valley?

A Okay.

Q Located in St. Johns County, correct?

A Yes, sir.

Q Okay. The type of certificate that you have is a grandfathered certificate, right, as shown on the rightmost column?

A I don't know. I didn't prepare this format that we have here, and this will be like what I was letting you know before, this is like an engineer trying to accounting. I cannot follow that chart that you have here.

Q I'm sorry, let me ask it differently. Irrespective of how it got there, doesn't the rightmost column that goes with Palm Valley indicate that the type of proceeding was a grandfather certificate?

A That's what it says. I don't know what it means.

Q And the column, the issue date immediately to the left of that says 04/29/1994, correct?

A That's correct.

Q Now, if you remember this, Mr. Terrero, doesn't that reflect the fact that St. Johns County had jurisdiction of the Palm Valley system immediately prior to the grandfather certificate?

A It could have been. I don't know.

Q If St. Johns County was regulating the Palm Valley system, how could you have had an expectation of having uniform rates when you made those capital improvements?

A I couldn't tell you.

Q But you did testify, did you not, Mr. Terrero, that --

A Yes, I did.

Q -- that you made those capital improvements with the expectation that they would be covered by uniform rates, right?

A That's correct.

Q Okay. Someplace in your testimony I think are the

-- and this is about the end -- you've indicated that there are ten reverse osmosis wells on Marco Island, right? There were ten dug or you are in the process of digging five more, is that correct?

A That's correct.

Q And are they not 12 to 16-inch wells?

A I don't know the exact size. I think they are 12 inches, subject to check.

Q Okay. You mentioned a moment ago the notion of sinkholes in Hernando or Citrus County, right?

A I thought we had done away with that already.

Q Done away with what?

A Yes, I did.

Q The question, Mr. Terrero, is real straightforward. I asked you -- and the issue here goes to the -- goes to the life lifespans of the reverse osmosis wells on Marco Island. And that is, we discussed in your deposition, did we not, that you understood that there was a phenomenon called subsidence, correct?

MR. FEIL: Objection. I don't believe this is relevant to any issue raised in this proceeding.

MR. TWOMEY: I just said I believe it was relevant to the wells. Now, is the answer, is there a specific issue number directly related to the lifespans, used and useful lifespans of the reverse osmosis wells? No. But I think

it's encapsulated in the larger issue of the used and useful lives of the property at that location.

MR. FEIL: Used and useful.

MR. TWOMEY: Yes. And the simple question I want to ask him, Madam Chairman, is whether or not he knows as an engineering whether they can preclude the possibility of subsidence at Marco Island, which is a concern, as a result of the amounts of water they are going to be permitted to withdraw?

CHAIRMAN CLARK: You may answer the question, Mr. Terrero.

MR. FEIL: Commissioner, also, if I may, if Mr. Twomey is going to be referring to questions from Mr. Terrero's deposition, it would seem to me beneficial if Mr. Terrero had his deposition with him, or if Mr. Twomey would refer to what portion of the deposition before Mr. Twomey starts quoting Mr. Terrero's deposition.

MR. TWOMEY: Madam Chairman, I didn't quote, I believe, at any point Mr. Terrero's deposition. I asked him wasn't it true that he said certain things in there. If someone wants to suggest on redirect that that's not true or whatever, that's fine. But I wasn't trying to use it specifically to suggest that he was not being consistent with the deposition.

CHAIRMAN CLARK: Mr. Twomey, let's go back to the

question you did ask. Can you ask that question again so Mr. Terrero knows what it is he has been asked to answer.

MR. TWOMEY: Yes, ma'am.

BY MR. TWOMEY:

Q You are a professional engineer?

A Yes, sir.

Q Okay. And my question to you is are you aware of a phenomenon known as subsidence?

A Yes, but not at Marco Island.

Q But what is to your knowledge the notion of subsidence?

A It's just that the surface goes down. But this doesn't happen in Marco Island. You're trying to get this issue going. This is not an issue. We have hydrological people. You have deposed, your office has deposed people on this, and there is not an issue. This is like asking us to decide for earthquake or asking us to decide five feet underground for the water lines because we feel that it's going to freeze down in Marco. It's not an issue.

Q Yes, sir. But can you testify of your own personal knowledge that subsidence is not possible at Marco Island given the level of withdrawal permitted for those wells?

A There won't be subsidence in Marco Island, because that's what the hydrologic people say. To take the amount

of water that we are taking out of Marco Island is like taking a 55-gallon drum and taking an eyedrop and taking a drop out of there. That's what it is. And it is recovered again by rainfall. The pressure is so high in Marco Island that the water raises about 15 feet up in the air from the aquifer, not from the water mains.

Q Yes, sir. And isn't it true that that pressure has been reducing over time, or do you know?

A It has been the same since I have known Marco Island. That goes back to 1966.

Q So it's your testimony based upon your knowledge as an engineer that it cannot happen, is that it?

A That's correct, not on Marco Island.

Q Not based on the information of others, but based upon your personal knowledge as a professional engineer, you're saying you have investigated that and it cannot happen?

A Based on the information that the hydrological people have given me, I say that there is no subsidence in Marco Island. It's not an issue.

Q And the last part on this is, which engineers have you spoken to that have given you this information?

A ViroGroup and also the water management district. I don't know if you're aware, we also got from the water management district a 20-year permit to get the 8.2 million

gallons per day, that huge amount of water that we are going to pull out. So that's a 20-year permit, and it has conditions to look at it, but there is no subsidence issue as stated by the water management personnel.

Q Do you know whether the water management district looked at this issue, the subsidence issue?

A They look at all the possibilities that they have when they drill, and it is not an issue. It's like saying earthquake on Marco Island. It's not an issue. It's not.

Q Yes, sir. But do you know whether they looked at that specific issue?

A They don't have to look at that issue, but they look at the hydrologic formation and it's not an issue.

Q And somebody told you that?

A Yes.

Q Who told you that?

A ViroGroup.

Q And --

A I checked with ViroGroup after I talked to you. There is not an issue. You know there is not an issue because you had them deposed, and also the water management district was deposed, and it's not an issue. I mean, how many times do I have to say it? It's not an issue. It's not.

Q Okay. What are your current plans on Enterprise,

Mr. Terrero? Are you going to go ahead and make those improvements or are you going to await the outcome of the rate structure?

A At this time we are not doing any improvements at all.

Q Okay. How about other improvements, like the enclosed chlorine buildings that we talked about in your deposition?

A As I said before, the system that you are talking about was the system that was approved and actually by the department at this time that it was built and at the time we get rate relief then we might think about enclosing those chlorine facilities.

Q Okay. Is that specific project that you just referred to, is that included in your test year?

A No, it's not.

Q It's not?

A I don't believe it is. You will have to check with Dennis Webster, but I didn't believe it is.

MR. TWOMEY: Okay. Thank you, that's all I have.

CHAIRMAN CLARK: Thank you. Staff, how much do you have?

MR. PELLEGRINI: About 15 minutes.

CHAIRMAN CLARK: Why don't we go ahead and take a 20-minute break to allow you to go get our meals microwaved,

and also for those people who need to have dinner brought in, it will give you an opportunity to order it and make arrangements to have it brought in so you can eat if you so choose.

MR. ARMSTRONG: Madam Chair, do you have any knowledge of how long we are going to go tonight, how late?

CHAIRMAN CLARK: I believe we will go until about 8:00 o'clock. It depends on how quickly we get through things. We'll reconvene at 20 till 7:00.

(Dinner recess.)

CHAIRMAN CLARK: We will reconvene the hearing. Mr. Pellegrini.

CROSS EXAMINATION

BY MR. PELLEGRINI:

Q Mr. Terrero, good evening.

A Good evening.

Q Let me begin by referring you to Pages 9 and 10 of your direct testimony. There you speak about the permit familiarization process, is that correct?

A Yes, sir.

Q Let me ask you this, would you agree that a small service area, such as Sunny Hills, would not have access to the resources provided by the environmental compliance and permitting department if it were required to apply for permits independently?

A Come back with that question again, please.

Q Considering a small service area, such as Sunny Hills, would you agree that it would not have access to the resources provided by the environmental compliance and permitting department if it were required to apply for permits independently?

A All the permitting that we do for all of our utilities is done from Apopka, and Sunny Hills is no exception.

CHAIRMAN CLARK: Mr. Terrero, if I understand what he was asking, if Sunny Hills had to do it itself, if it were a separate entity, would they have the personnel to do that?

THE WITNESS: Probably would have to have either personnel or a consulting engineer to do it for them.

CHAIRMAN CLARK: Okay.

MR. PELLEGRINI: And that was the appropriate follow-up question, thank you.

BY MR. PELLEGRINI:

Q Moving to a different subject, Mr. Terrero, for a moment. Or going back to a question really that Mr. Twomey asked you concerning Enterprise and Deltona Utilities. It's true that you were employed by Deltona Utilities prior to their takeover by SSU, you have testified to that, I believe?

A Yes.

Q Were you then aware of the Deltona decision to become a receiver of the Enterprise system, were you personally aware of that?

A Yes, I was.

Q Can you describe your involvement in that decision?

A I went with the Department of Environmental Protection to take a look at the utility, and it looked just like a utility.

Q I'm sorry, I didn't follow.

A We didn't see anything that came out of that that it was a bad utility. It had a spray irrigation field, it had treatment, it had a pond, it had pumps.

Q Going back to another line of questioning that Mr. Twomey began with you concerning capital projects and the influence of uniform rates and stand-alone rates upon the utility's decision to go forward, the question is do you believe that some projects which have been budgeted for 1996 may not occur as planned in the event of stand-alone rates?

A Probably not.

Q Could you supply us with a late-filed exhibit which would enumerate those projects?

MR. FEIL: Commissioner, I have an objection to that. It seems to me like Mr. Terrero's answer was based on

speculation, and now staff is asking us to devise a late-filed exhibit to clarify that speculation. I don't know how it could be done.

CHAIRMAN CLARK: Well, that will be up to the witness, won't it, Mr. Feil?

MR. FEIL: I suppose so, yes, ma'am.

CHAIRMAN CLARK: As I understand it, Mr. Terrero, what the staff has asked for is your view of what additions to plant will not be made if uniform rates are not approved, is that correct, Mr. Pellegrini?

MR. PELLEGRINI: Yes. I'm simply asking for Mr. Terrero's best guess as to which projects might fall out.

CHAIRMAN CLARK: Do you understand the request?

THE WITNESS: Yes. I cannot provide you with an answer because not knowing what kind of revenues we are going to get, we don't know that kind of budget we are going to have. So if we don't know what we are going to get, then we don't know what facilities we are going to expand.

MR. PELLEGRINI: Just a moment.

BY MR. PELLEGRINI:

Q Could you provide an answer on this basis, on the basis of the budget, the projected budget as filed, if the rate structure ultimately were to be stand-alone, then which of these projects would fall out of planning?

A I couldn't tell you.

COMMISSIONER KIESLING: Let me just -- that's just for what was projected for 1996, but is yet to be completed?

MR. PELLEGRINI: That's correct, Commissioner.

THE WITNESS: I couldn't tell you that. An evaluation has to be made and see what environmental problems we could have. An analysis would have to be made in what we could do.

BY MR. PELLEGRINI:

Q What I'm really trying to do is simply to isolate one variable.

A I couldn't give it to you. I couldn't say.

Q That variable being the rate structure, everything else being as it presently is or projected to be, whether you could make that analysis?

A No, I can't.

Q Well, in answer to my first question you did agree that some projects, some projects presently budgeted for 1996 would not go forward were the ultimate rate structure to be stand-alone?

A That's correct.

Q What was your basis for that?

A Well, it is based on just in the sense that if we don't get the revenues that we are supposed to get, I don't see how we are going to have the investors invest in any money in the utility. And so we have to go back to square

one and analyze the budget again, and there goes another six months of analyzing budgets.

CHAIRMAN CLARK: Mr. Terrero, I think there seems to be a miscommunication. Mr. Pellegrini seems to be asking you about uniform rates and you're answering in terms of revenues. And it is quite possible that uniform rates as well as stand-alone can generate roughly the same revenues, and so I think you need to clarify your answer. Is it your concern with these projects going forward a function of revenue or is it a function of stand-alone rates as opposed to uniform rates?

THE WITNESS: It's based on uniform rates, it's not based on final revenues that the company gets, but it's actually on the basis of the customer, how much the customer is going to pay.

CHAIRMAN CLARK: To state that another way, are you trying to make the distinction if you had to do stand-alone rates there are some projects for some systems that would be such an impact that it would cause you to rethink whether or not this project should go forward?

THE WITNESS: That's correct.

CHAIRMAN CLARK: Okay. Can you identify those systems and projects?

THE WITNESS: One project would be Enterprise, The first project that we can take a look at it. But other

projects would have to be analyzed.

BY MR. PELLEGRINI:

Q Well, you're able to identify at least one project, so perhaps you're able to pursue that and identify some others, that is beyond Enterprise?

A I couldn't at this time.

Q I'm sorry?

A I couldn't at this time.

Q It takes time is what you said?

A Yes. I could not identify any other projects at this time from the list that we have. I don't even have the list of the projects that we have in 1996.

Q I understand. I'm sorry. I understand that, that's why I asked you initially if you could supply this information to us as a late-filed exhibit.

COMMISSIONER KIESLING: One of the things I'm confused about is that when you first asked for the late-filed exhibit you asked for a list of the projects that they would not do if uniform rates didn't go in. And his answer just now was that they would have to rethink, you know, what they have budgeted if uniform rates weren't imposed. And that is different than being able to identify which ones they are not going to do. All he is saying is that when that happens, they would have to go in and reassess things. And I think that's where some of the

confusion is coming between the two of you, because you're asking for the names of systems that they would not do, or projects they would not do, and he is saying they would have to go in and analyze that, he doesn't know which ones they won't do.

MR. PELLEGRINI: Apparently not. I thought he might. We'll leave that for the moment, but I may come back in a moment.

BY MR. PELLEGRINI:

Q Mr. Terrero, in responding to OPC's questions regarding Citrus Springs, you said that future utility sites are planned. Just this generally mean you would know what facilities would sit on those sites?

A We provided the staff, I believe, with a master plan of all the Citrus Springs, including future lines, demands on the system, and how much water was going to be withdrawn from those sites. Does that answer your question?

Q Well, would the answer to the question in the first place be, yes, that you do know -- you do know what facilities would be sited?

A We have an idea what has to be sited, but I couldn't give you a specific on which type of pump I'm going to use, how big the pump is going to be. We know how much is going to come out of the site, and how much storage we are planning to have there, but that's about it. We have

not done a detailed engineering analysis on the site.

Q All right. Do you plan on adding ground storage at Citrus Springs by the end of 1996?

A Yes, sir.

Q The four systems for which you did hydraulic analysis, why were those four systems chosen for that type of analysis?

A I guess they were the largest systems that we have, and that's what we decided to use and we cannot go ahead and take all the systems, and design all of the systems, and do the same type of analysis in all the systems at the same time. It would take a tremendous amount of time and effort to do something like that.

Q Was the decision to analyze these systems in that way influenced at all by the extent of non-used and useful lines in those systems?

A I believe that was a part of it.

Q With respect to lead exceedences, do the customers benefit if the utility were to average the numbers such that the problem goes away, I mean in the manner that you described in response to Mr. Twomey's questioning?

A Could you repeat the question.

Q I'm speaking with reference to Cobblestone and Beacon Hills, the averaging of the lead exceedence numbers as between the parts of that system or two parts of that

facility?

A Okay.

Q Does the averaging of those numbers benefit the customers in any way?

A Well, actually what will happen is that you won't exceed the actual level. It doesn't mean that we are not going to do what we are supposed to do and what we are doing. We already have our facilities installed at this utility.

Q But the fact remains that lead exceedence exists in a part of the facility despite the averaging of the two parts of that facility?

A Well, it exceeds in one area the actual level, like I said, this is one source and we have one permit from the water management district, and it makes sense to use it because we have four interconnections between the two utilities there. So it's a matter of really the public and we have done the improvements that need to be done.

Q But isn't this somewhat of an illusion, especially in respect to those customers who do have the lead exceedence problem?

MR. FEIL: Excuse me, did you say illusion?

MR. PELLEGRINI: Illusion.

THE WITNESS: How was the question, sir?

BY MR. PELLEGRINI:

Q What I'm driving at is this, those customers in that part of the system that are actually experiencing a lead exceedence problem, which is made, in effect, to go away by the averaging of the two parts of the system. My question is how does that benefit them, those that are actually experiencing the problem, because you now have yourself in the position where you don't have to go forward with the edification requirements and all of that?

A Well, like I say, we have done the improvements and we have up till 1997 to come up with the optimal solution. And, you know, we are not the only system that actually has all these exceedences in action levels. I mean, that you exceed the action level doesn't result in a violation. Actually, like I said before, we have in excess of -- excuse me a second. In a list that I obtained from DEP --

Q Well, I think, Mr. Terrero, you have answered the question.

A Could I give you some numbers here?

Q Perhaps in --

A It makes it, you know, in light of what we got here of 2,136 systems that DEP actually -- how you call it, surveyed, 404 had exceedence in copper, 256 have --

CHAIRMAN CLARK: Mr. Terrero, why don't you save that and see if your attorney asks you that information on

redirect. I think it may be going beyond what the staff attorney has asked you.

COMMISSIONER KIESLING: While staff is working on the next question, I'm confused now, and I need some clarification. The proposal that you made about the Beacon Hills and the Cobblestone whatever it is, Cobblestone system, you weren't proposing that they be averaged, were you? I thought you were proposing that they that be aggregated.

THE WITNESS: They will be aggregated.

COMMISSIONER KIESLING: And average is not the right word, then?

THE WITNESS: Average is not the right way.

COMMISSIONER KIESLING: Well, that helps me understand all of these questions, because I couldn't understand how averaging would make any difference.

THE WITNESS: It will not average. You would take the sample from Cobblestone and Beacon Hills, put them together and add them up. If you have a failure or excess of the action level, then you will have to notify both systems. So actually it's not an average, it's the action level that you exceed, number of action levels you exceed.

COMMISSIONER KIESLING: So, back to what you originally said, you would take the 50 test samples that were taken in Beacon Hills and the 43 that were taken in

Cobblestone, you would add those together so you would have 93 samples?

THE WITNESS: That's correct.

COMMISSIONER KIESLING: And then you would look at out of that 93 how many exceeded lead and how much exceeded copper?

THE WITNESS: That's correct.

COMMISSIONER KIESLING: Thank you

(Transcript continued in sequence with Volume 5.)

DOCKET 950495-WS
EXHIBIT NO. 80
CASE NO. 96-04227

EXHIBIT (RAT-1)

RAFAEL A. TERRERO, P.E.
2711 Ambrosia Court
Apopka, Florida 32703
Phone (407) 884-8931

EDUCATION:

Florida International University School of Technology, B.S. Environmental Technology
(Graduated 1974)

Miami Dade Junior College, Miami, Florida, A.A.S. Civil Engineering (Graduated 1973)

Attendance to trade workshops, i.e., Regulation of Utilities, Water Treatment Plant Design, EPA and DER, sponsored workshops, F.C.C.: Environmental Permitting

PROFESSIONAL REGISTRATION:

Civil Engineer, State of Florida No. 21076, (January 1977)

TECHNICAL PUBLICATIONS:

Co-Author of The Planning and Design of a Reverse Osmosis Plant Using a Deteriorating Water Supply presented at the AWWA Membrane Technology Conference (March 1991)

Co-Author of Marco Island RO Plant, Overcoming Regulatory and Construction Obstacles, A Case Study presented at the AWWA 1992 Conference, Vancouver B.C. (June 1992)

PROFESSIONAL EXPERIENCE:

Southern States Utilities, Inc. 1000 Color Place, Apopka, Florida 32712
(May 1992 to Present)

Manager, Environmental Services. Perform water and wastewater monitoring for operational compliance with environmental regulatory requirements; such monitoring may include safety considerations, testing and permitting. Performs administrative work relating to assignments including appropriate reports, action plans, recommendations, etc. Effective performance achieved through application of internal and professional practices and cost considerations to assure compliance with all rules, regulations and permits while maintaining reliable, cost-effective service. Supervisor - Karla Olson Teasley, V.P. Corporate Services

(August 1989 to May 1992)

Chief Engineer, Planning and Engineering. Solely in charge of Engineering and Planning Department and staff of 14. Providing in house Engineering services and supervision of outside Consultants for all of the company's 144 water, wastewater and gas systems. Responsibilities include management and coordination of all activities of engineering staff, establishment of basic design approach, daily contact with Regulatory Agencies to obtain permits and certifications for all systems and treatment facilities. In charge of planning, including feasibility studies and budgeting. Evaluations of used and useful data for proposed rate cases before the Public Service Commission and other regulatory agencies. Supervisor - Charles E. Wood, P.E., V.P. Planning and Engineering.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 950495 EXHIBIT NO 80
COMPANY/ WITNESS: SSU/ Terrero
DATE: 4/29/96

Rafael A. Terrero, P.E.

PROFESSIONAL EXPERIENCE: (continued)

Robayna and Associates, 15900 N.W. 57th Ave., Miami Lakes, Florida 33014
(March 1989 to August 1989)

Vice President/Chief Operating Officer, Dade County Office. Directing operations for Dade County's office consisting of 26 professional and technical personnel. In charge of complete office operation client contact, providing engineering support to Engineering and Surveying Departments. Supervision and coordination of office and field personnel. Supervisor - Rafael Robayna, P.E.

Deltona Utilities Consultants, Inc., 3250 S.W. Third, Miami, Florida 33129
(October 1966 to March 1989)

Vice President and Chief Utilities Engineer, Engineering Department. Solely in charge of Department, providing all engineering services related to water, wastewater and gas systems at all of the company's projects. Responsibilities include management and coordination of all activities of engineering staff, establishment of basic design approach to be used for all network systems and treatment facilities. Coordination and programming of facility design consistent with project development. Supervisor - Arsenio Milian, P.E., President

Direct technical assistance to President. Utility Operations in matters of long range planning, feasibility studies, budgeting. Evaluation of used and useful data for proposed rate cases to assist in Public Service Commission hearings and so forth. Direct personal contact with key members of various regulatory agencies in procurement of permits required for facility construction and operation. Inspection of all completed facilities and certification thereof to pertinent regulatory agencies.

Consultant to Utilities Field personnel in all phases of facility construction and operation. Coordination with clients to provide consulting services. Professional engineering and administrative work directing and coordinating water and wastewater facility agreements between the utilities and private property developers and owners. Responsibilities include directing the activities and coordinating the functions of water and wastewater developer inspections, developer agreements preparation, new business activities and develop plan review.

Anthony J. Malley, Consulting Engineer, 1111 Boxwood Lane, Syracuse, New York
(October 1963 to September 1966)

Designer. Design and inspection of water distribution and wastewater collection systems. Design and inspection of stormwater systems. Supervisor - Anthony J. Malley

Rafael A. Terrero, P.E.

ACCOMPLISHMENTS:

(1990 - 1991) On-Site Improvements to Deltona 0.9 MGD STP Facility including Public Access facilities $1,334,145; Five new wells, with a capacity of approximately 5.0 MGD; effluent transmission from WWTP to golf course; $3M 0.5 M.G.D. WWTP expansion; $16M improvements to Marco Island Utility including 1.0 MGD WWTP expansion, 4.0 MGD R.O. WTP, and effluent river crossing; Seaboard Utilities $600,000 improvements; Venice Gardens improvements including Reverse Osmosis expansion and two new deep wells; Woodmere new 12" outfall lines for effluent disposal; Beacon Hills install new de-chlorination facilities and installation of Periox-guard system in collection system; Burnt Store, new R.O. plant expansion; Sugar Mills Woods new water plant; Marion Oaks water storage tank; Citrus Park, new wastewater plant and sprayfield; Fisherman's Haven, upgrade WWTP and effluent disposal; Fox Run New WTP; South Forty new wastewater facility.

(1989) High service pump installation at Saxon WTP, at Courtland WTP, at Lombardy WTP, Chlorination system improvements at Sagamore WTP, Well No. 27 at Deltona; Marco Island Water system interconnection with Collier County, and additional high service pumps at Unit 25; replacement pump for infiltration galley; Marion Oaks Well No. 6.

(1988) Deltona Well No. 28; 2.0 MGD Water storage tank at Marco Island, Conversion of WTP storage tank to STP equalization tank; Wastewater collection system extension at Marion Oaks, Seaboard 1.0 MGD water storage tank and high service pumps.

(1987) Investigation of Reverse Osmosis systems to be used as an alternate to lime softening treatment, THM control and EPA new proposed regulations. Design of Ammoniation System to reduce MCL of THM's at Marco Island. Design of a 2.0 MGD addition to Spring Hill Wastewater Treatment Plant using an oxidation ditch and boat clarifier. Design of additional raw water pumping facilities consisting of 2 - 600 H.P. pumps for Marco Island. Design of Raw Water Booster Station consisting of 3 - 200 H.P. can type pumps and related controls. Additional water supply facilities for different communities consisting of approximately 7 MGD. Addition of 3.25 MGD wastewater effluent filter to meet public access effluent standards at Marco Island. Telemetry systems for three of our utilities in order to reduce cost related to operations of water and wastewater facilities.

(1986) Addition to different utilities in order to keep up with community growth, i.e., sludge drying beds, water supply wells, high service pumping facilities, etc.

(1985) 1.0 MGD addition to the lime softening plant at St. Augustine Shores water treatment plant. This plant was the first in the State to have an air/water filter backwash system.

(1984) Construction supervision, budgeting and certification of facilities completed. Construction supervision, scheduling and certification of 2.0 MG prestressed storage tank. Coordination of new regulations to be in compliance for all Water and Wastewater facilities. Supervision of design and construction of evaporation percolation ponds with an area of 11.5 acres for final disposal for Marco Island Wastewater Treatment Plant secondary treated effluent with overflow to uplands.

(1983) Construction supervision of the upgraded facilities. Coordination with Consultants for a Raw Water Supply Study for 19 mgd demand.

(1982) Design of raw water pumping facilities and raw water supply for Marco Island. Coordination with regulatory agencies to construct these facilities. Pumping facilities consist of 5500 GPM low head pumps, 250,000 gallons blending tank, infiltration gallery, and high service pumping facilities with 5 - 400 HP centrifugal pumps. Estimated cost $1,500,000.

(1981) Design of a .300 MGD addition to St. Augustine Shores Wastewater Treatment Plant for a total capacity of .500 MGD by changing the process from Extended Aeration to Contact Stabilization.

Design of a .140 MGD Contract Stabilization Wastewater Treatment Plant for Marco Shores.

Rafael A. Terrero, P.E.

ACCOMPLISHMENTS: (continued)

Design of a 1.0 MGD Water Treatment Plant with the Lime Softening Process to serve Marco Shores.

Design of Digester with Floating Aerator for Marco Island Utilities.

Design of additional Lime Sludge Dewatering System for Marco Island Utilities with a capacity of 5 MGD for a total capacity of 10 MGD.

(1980) Design of a 1.5 MGD addition to Spring Hill Utilities Wastewater Treatment Plant for a total capacity of 2.0 MGD using the contact Stabilization process and spray irrigation for effluent disposal. Design of 1.0 million gallon storage tank and related pumping facilities for St. Augustine Shores, Marion Oaks, Deltona and Spring Hill Utilities.

(1979) Design of a 5.0 MGD Lime Softening addition to Marco Island Utilities Water Treatment Plant.

Design of 1.5 MGD addition to Marco Island Utilities Wastewater Treatment Plant for a total capacity of 2.5 MGD using the Contact Stabilization process and an additional Equalization Tank.

(1978) Design of a 2.0 MD addition to Water Softening Plant for Marco Island.

Design of a .200 MGD extended aeration wastewater treatment plant for St. Augustine Shores with spray irrigation as final disposal.

(1977) Obtained the Professional Engineers License, January 28, 1977, to practice in the State of Florida. Registration #21076.

Promoted to Chief Utilities Engineer, heading a staff of two Professional Engineers, a Jr. Engineer, a Designer, and three Draftpersons.

Design and supervision of Rotonda West .250 MGD wastewater treatment plant with an estimated cost of $250,000. Marco Island lime sludge dewatering system with an estimated cost of $325,000. Marco Island 1.0 G storage tanks and pumping facilities. Completion, testing and certification for:
Water Lines, 140 miles; Sewer Lines, 41 miles; Gas Lines, 7 miles.

(1976) Completed preliminary study of proposed expansion to the Marco Water Treatment Plant. The expansion consisted of 2.0 MGD lime softening plant with related automatic filters, estimated cost $675,000. Study and recommendation of a lime sludge dewatering system at Marco Water Treatment Plant. Study and recommendation for raw water pumps and related facilities for Marco Island.

Wastewater Master Plan for Rotonda West located in Charlotte County. Feasibility study for water and wastewater treatment plants at Rotonda West. Supervision of the design of the first stage of the wastewater treatment facilities for Rotonda with a capacity of .250 GD. Supervision of the operation of the reverse osmosis plant with a capacity of .5 MGD. Water supply investigation for Seminole Woods subdivision, located in Seminole County, Florida.

(1975) Promoted to Engineering Supervisor of the Utilities Division. Additional responsibilities include: Scheduling Work to meet deadlines, supervision, coordination and review of staff engineers an technicians, evaluating major changes to achieve overall objectives. Initiate and maintain extensive contact with key engineers and officials of other departments and organizations. Preparations and analysis of surveys and pollution data. Advising on problems on water and wastewater treatment plants. Advising on problems on water and wastewater treatment plants. Report and evaluation of proposed or existing water and wastewater systems.

Rafael A. Terrero, P.E.

ACCOMPLISHMENTS: (continued)

(1974) Follow-up of work designed in prior year due to slow down in economy. Graduated with a B.S. in Environmental and Urban Systems Program from Florida International University in December 1974.

Promoted to Engineer with the responsibilities of Design Supervisor for all phases of water distribution, wastewater collection and gas distribution systems. Supervision of Pollution Surveys at different communities developed by the Deltona Corporation.

(1973) Preliminary study for a Wastewater District for Marion Oaks Subdivision, Marion County, Florida, consisting of approximately 34,000 lots. Design of water distribution system and gas distribution system for the above mentioned subdivision.

(1972) Design of water distribution and gas distribution systems for Pine Ridge Subdivision, Citrus County, Florida consisting of 9,000 lots with an area of 1 to 5 acres each.

(1971) In January of this year, an Engineering Technician was placed under my supervision to design wastewater collection systems.

Designing of water distribution, wastewater collection and gas distribution systems to serve Sunny Hills Subdivision, Washington County, Florida, consisting of 32,000 lots, and additional 5,000 to 6,000 multi-family units as incorporated in the design.

On May, 1971 a Professional Engineer was hired to work under my supervision, assisting on Hardy Cross Analyst.

Design of a 14" raw water transmission line, 9 miles long, parallel to a 12" existing line to serve Marco Island, estimated cost $1,250,000.

Design of water distribution system to serve 540 unit hotel at Marco Island, estimated cost $92,000.

(1970) Design of water distribution, wastewater collection and gas distribution systems for St. Augustine Shores Subdivision, St. John County, Florida containing 9,000 lots and 4,000 multi-family units.

(1969) Design of water distribution system to serve Citrus County, Florida, with approximately 32,000 lots, pipe diameter varies from 4" to 20" Sanitary wastewater collection system to serve a portion of Citrus Springs Subdivision, consisting of about 2,000 lots; the system included lift stations, pumping stations and force mains. Sanitary wastewater systems to service Citrus Springs Subdivision consisting of 32,000 lots. Mains vary from 1/2" to 2".

(1968) Water distribution design for Spring Hill Subdivision, Hernando County, Florida consisting of approximately 35,000 lots, as of this date completion is 98 percent. Pipe diameters vary from 4" to 20", fire flows were included in the design. Design of wastewater collection system for Spring Hill Subdivision, consisting of 4,600 residential lots. As of this date this system has been completed and certified. Design of gas distribution system for the same 4,600 lots. Pipe diameter vary in size from 1/2" to 8". Sanitary wastewater study for Marco Island Subdivision, Collier County, establishing lift station areas for approximately 11,000 lots. Force main study to serve these lift stations and pumping stations. Hydraulic study of combined lift stations and pumping station. Complete study consisted of approximately 108 lift station areas.

(1967) Design of wastewater system for second housing area for Deltona Subdivision, Volusia County, Florida containing about 500 residential lots, some business tracts, and school site.
August 1967 started Hardy Cross Analysis for the complete Deltona Subdivision, consisting of 426 miles of water mains. As of this date 436 miles have been completed. The pipe diameters vary from 4" to 14", fire protection was included in the design.

Rafael A. Terrero, P.E.

ACCOMPLISHMENTS: (continued)

September 1967, started Hardy Cross Analysis for Marco Island Subdivision, Collier County, Florida, containing approximately 180 miles of water main varying in size from 4" to 36". There are approximately 13,000 residential lots, projected amount of multi-family and hotel units is unknown due to the fact of changing zoning regulations.

(1966) Design of wastewater system to serve Memory Lane Tract, Village of Manilus, County of Onondaga.

Note: Starting in 1965, field inspection of the different projects was done for engineering certification.

There were several different projects involving testing of water supply, checking for leaks, etc. In June, 1966, assisted Mr. William R. Sabis with laboratory and field analyses for this Thesis entitled Some Effects Of A Secondary Effluent On A Small Receiving Stream, submitted in partial fulfillment of the requirements of the degree of Master of Science in Sanitary Engineering in the Graduate School of Syracuse University.

(1965) Field survey for Fairmount Wastewater System. Preparation of drawings from field notes.
Design of portion of sanitary sewers for Fairmount Wastewater District, Town of Camillus County of Onondage. Estimated construction cot $110,000.

(1964) Preparation of drawings from field notes and worked in close support with the design engineer. Recommendation of small changes and effect on original design. Worked with minimum supervision. Design of portion of Village of North Syracuse Sanitary Sewer District.

Field survey and level run to establish minimum design elevations of Village of North Syracuse. Approximate cot of construction of collection system $500,000.

(1963) Draftsman for Mr. Anthony J.Malley, P.E. Syracuse, New York.

SOUTHERN STATES UTILITIES
1993 SAFETY TRAINING SUMMARY

DATE	LOCATION	TOPIC	NO. OF ATTENDEES
1/11/93	Spring Hill	Shoes	9
1/12/93	Amelia Island	Safety Lockout Procedures	6
1/14/93	Apopka	Self-Contained Breathing	15
2/93	Ft. Myers	Cl_2 Troubleshooting	1
2/4/93	Marco Island	Electrical Safety/Lockout	17
2/11/93	Apopka	Safety	15
2/16/93	Spring Hill	Driving	12
2/18/93	Amelia Island	Material Safety Data Sheets	5
3/7/93	Spring Hill	Confined Space Entry Training	23
3/8/93	Citrus Springs	Confined Space Entry Training	8
3/15/93	Spring Hill	Safety Equipment	11
3/26/93	Apopka	Safety in traffic	13
4/93	Spring Hill	First Aid	8
4/6/93	Lake Gibson	Confined Space Entry	4
4/6/93	Seaboard	Confined Space Entry	5
4/8/93	Marion Oaks	Confined Space Entry	8
4/9/93	Apopka	Confined Space Entry	18

EXHIBIT (RAT-2)
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SOUTHERN STATES UTILITIES
1993 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC	NO. OF ATTENDEES
4/14/93	Venice Gardens	Confined Space Entry	24
4/15/93	Lehigh	Confined Space Entry	24
4/16/93	Marco Island	Confined Space Entry	26
5/7/93	Apopka	Confined Space Entry	16
5/19/93	Spring Hill	Hand Tools	9
5/21/93	Apopka	First Aid and Bloodborne Pathogens	17
5/27/93	University Shores	Confined Space Entry	9
6/93	Charlotte County Office	Hurricane Preparedness	1
6/18/93	Spring Hill	Vehicles	11
6/23/93	Deltona	Confined Space Entry	27
6/25/93	Apopka	Confined Space Equipment	15
6/29/93	Sunshine Parkway	Confined Space Entry	3
7/2/93	Apopka	Heat Stress	12
7/7/93	Martin County	Confined Space Entry	3
7/15/93	Amelia Island	Confined Space Entry	4
7/15/93	Pomona Park	Confined Space Entry	6

EXHIBIT (RAT-2)
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SOUTHERN STATES UTILITIES
1993 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC	NO. OF ATTENDEES
7/16/93	Woodmere	Confined Space Entry	6
7/19/93	Spring Hill	Drugs/Alcohol	7
7/27/93 - 7/28/93	Lehigh	Safety Training	30
8/93	Lehigh	Air Pac (Breathing) Training	3
8/9/93	Spring Hill	Fire	8
8/11/93	Deltona	Chlorine Safety, Heat, Back (Lifting Techniques)	28
8/26/93	Apopka	Eye/Hand/Head Injury Protection	15
9/93	Lehigh	Air Pac (Breathing) Training	3
9/93	Sarasota Memorial Hospital	Confined Space Entry	1
9/4/93	Spring Hill	Chemicals	8
10/93	Lehigh	Air Pac (Breathing) Training	3
10/6/93	Woodmere	Electrical Lockout	11
10/8/93	Apopka	General Safety	14
10/18/93	Spring Hill	Safety Checklist	12

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SOUTHERN STATES UTILITIES
1993 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC	NO. OF ATTENDEES
10/22/93	Apopka	Minimizing Back Strains	16
10/28/93	National Safety Council	Driving	23
11/93	Venice Gardens	R.O. Skid Maintenance	3
11/3/93	Sunny Hills	Confined Space Entry	3
11/11/93	Spring Hill	Back Fitness	13
12/93	Lehigh	Air Pac (Breathing) Training	3
12/93	Venice Gardens	CPR	14
12/6/93	Spring Hill	Back Power	9

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SOUTHERN STATES UTILIITES
1994 SAFETY TRAINING SUMMARY

As of: November 21, 1994

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
1/10	Spring Hill	Back Power - Muscle Maintenance	1 hr	12
1/11	Lehigh Acres	Air Pac Training	1 hr	4
1/14	Martin County	Electrical Safety	1 hr	5
1/14	Apopka	Traffic Work Zone Safety	1 hr	13
2/2	SSU	Chain Saw Safety	1 hr	1
2/14	Spring Hill	Back Power - Back Homework	1 hr	13
2/16	SSU	Hearing Loss Prevention	1 hr	1
2/23	Deltona	Seat Belts & Vehicle Safety	1 hr	36
2/23	Marco Island	Excavations & Trenching, competent Person Training	1 hr	4
2/25	Apopka (Engineering)	Seat Belts	3/4 hr	4
2/25	Apopka	Minimizing Back Strain	1 hr	16
3/9	SSU	Scaffolding	1 hr	1
3/15	Lehigh Acres	General Safety	1 hr	4
3/16	Spring Hill	Human Factors & Safety 10 Most Common Hazards	1 hr	12
3/23	SSU	Respiratory Protection	1 hr	1

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SOUTHERN STATES UTILITIES
1994 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
3/25	Apopka (Engineering)	Emergency Planning	3/4 hr	12
3/25	Apopka	Basic First Aid	1 hr	23
3/?	Lehigh Acres	Air Pac Training	1 hr	4
3/?	Lehigh Acres	Aztec Company New Commutator Training	1 hr	3
4/18	Apopka	CPR	4 hr	15
4/25	Apopka	First Aid	4 hr	16
4/27	SSU	Warning Labels & Material Safety Data Sheets	1 hr	1
4/29	Spring Hill	Injuries	1 hr	9
4/29	Apopka (Engineering)	Stress and Safety	3/4 hr	28
5/3	Spring Hill	How to Avoid Accidents	1 hr	13
5/4	Jacksonville	Risk Management & Loss Control	2.5 hr	20
5/11	Deltona	Risk Management & Loss Control	2.5 hr	25
5/18	Brooksville	Risk Management & Loss Control	2.5 hr	23

EXHIBIT (RAT-2)
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SOUTHERN STATES UTILITIES
1994 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
5/20	Deltona (construction)	Back Supports/Safety	1 hr	5
5/23	Deltona (Bristal Ct)	Back Supports/Safety	1 hr	4
5/24	Lehigh Acres	Chemical Safety	1 hr	6
5/24	Amelia Island	Gas Detector Operation	1 hr	6
5/25	Deltona Wastewater Facility	Back Supports/Safety	1 hr	7
5/25	Apopka	Risk Management & Loss Control	2.5 hr	35
5/26	Lehigh Acres	Risk Management & Loss Control	2.5 hr	35
5/27	Apopka (Engineering)	Safety in the Office	3/4 hr	21
5/27	Apopka	Safety Attitude "There are Choices"	1 hr	14
5/?	Lehigh Acres	Madison Electric Emergency Generator Transfer Switching	1 hr	3
5/?	Marco Island	Mueller Corp. - Stops & Fastening Machines	1 hr	2

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SOUTHERN STATES UTILITIES
1994 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
6/1	Venice Gardens	Risk Management & Loss Control	2.5 hr	14
6/3	SSU	Driving Safety	1 hr	1
6/7	Spring Hill	Job Safety Orientation	1 hr	11
6/14	Apopka	New Employee Safety Orientation	.5 hr	17
6/17	Apopka	Bloodborne Pathogens	1 hr	17
6/21	Lehigh Acres	Air Pac Training, General Safety	1 hr	4
6/24	Apopka (Engineering)	Heat Stress	3/4 hr	17
6/24	Apopka	Heat Stress	1 hr	16
6/29	SSU	Fire Prevention	1 hr	1
7/13	Spring Hill	Chemical Safety	1 hr	13
7/29	Apopka (Engineering)	Repetitive Motion Injuries	3/4 hr	22
7/29	Apopka	Chlorine Safety	1 hr	15
8/2	SSU	Hurricane Safety	1 hr	1
8/3	Spring Hill	Heat Stress	1 hr	13
8/16	Lehigh Acres	General Safety	1 hr	3

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SOUTHERN STATES UTILITIES
1994 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
8/19	Apopka	Training for the Safety Trainer	6.0 hr	6
8/25	Apopka (Engineering)	Chemical Safety	3/4 hr	15
9/7	SSU	Confined Space	1 hr	2
9/12	Spring Hill	Accident Reporting and Investigation	1 hr	17
9/15	Apopka	New Employee Safety Orientation, Hazard Communication/ Right-to-Know	1 hr	19
9/15	SSU	Chlorine Handling	1 hr	1
9/20	Apopka (2 Classes)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	34
9/22	Apopka (2 Classes)	Hazard Communication/Right-to-Know, Drug awareness	1.5 hr 1.5 hr	40
9/23	Apopka (2 Classes)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	41
9/27	Deltona (2 Classes)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	47
9/28	SSU	Confined Space Entry	1 hr	1
9/29	University Shores	Hazard Communication/Right-to-Know, Drug awareness	1.5 hr 1.5 hr	11

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SOUTHERN STATES UTILITIES
1994 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
9/30	Apopka (Engineering)	Back Injury Prevention	3/4 hr	21
9/30	Apopka	Fire Hydrant Safety	1 hr	16
10/4	Amelia Island	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	11
10/4	Sunny Hills	Hazard Communication/Right-to-Know, Drug arareness	1.5 hr 1.5 hr	3
10/5	Jacksonville (2 Classes)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	16
10/5	Marco Island	Fastener Safety	1 hr	5
10/6	Pomona Park	Hazard Communication/Right-to-Know, Drug awareness	1.5 hr 1.5 hr	7
10/10	Spring Hill	Office Safety	1 hr	8
10/11	Spring Hill	Working Safely in Traffic	1 hr	11
10/12	Spring Hill	Working Safely in Traffic	1 hr	10
10/12	Marion Oaks	General Safety, Life line Retrieval Line and Tripod	1.0 hr	9
10/18	Sugar Mill Woods	Working Safely in Traffic	1 hr	5
10/13	Martin County	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	4

EXHIBIT (RAT-2)
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SOUTHERN STATES UTILITIES
1994 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
10/25	Marco Island (2 Classes)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	33
10/26	Lehigh Acres (2 Classes)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	37
10/29	Apopka (Engineering)	Fire Safety	3/4 hr	16
11/1	Seaboard	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	5
11/1	Lakeland	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	3
11/4	Apopka	Safety Plan/New Safety Procedures (Quarterly Managers Meeting)	.5 hr	42
11/8	Apopka (make-ups)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	23
11/8	Spring Hill-Palm Terrace	Safety Awareness ("That Moment in Time")	.5 hr	22
11/9	Apopka (make-ups)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	14
11/9	Spring Hill	Safety Awareness ("That Moment in Time")	.5 hr	13
11/10	Apopka (make-ups) (2 Classes)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	19

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SOUTHERN STATES UTILITIES
1994 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
11/14	Marco Island	Publix Back Support Video, Causes & Care of Accute Back Pain	1 hr	7
11/15	Marion Oaks	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	16
11/15	Spring Hill-Sugar Mill Woods	Safety Awareness ("That Moment in Time")	.5 hr	5
11/16	Marco Island	Heat Stress, Back Injury Prevention	1 hr	11
11/16	Citrus Springs (2 Classes)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	13
11/17	Spring Hill (2 Classes)	Hazard Communication/Right-to-Know, Drug Awareness	1.5 hr 1.5 hr	41
11/18	Apopka (Engineering)	Vacation/Holiday Safety	1 hr	14
12/13	Apopka	New Employee Safety Orientation, Hazard Communication/ Right-to-Know	1 hr	TBD
12/16	Apopka (Engineering	Automobile Safety	3/4 hr	TBD

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SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY

As of: June 23, 1995

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
1/10	Spring Hill	The Case for Safety (Motivational)	.5 hr	24
1/17	Sugar Mill Woods	The Case for Safety (Motivational)	.5 hr	5
1/17	Amelia Island	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	7
1/17	Seaboard	First Aid	1.0 hr	4
1/18	Woodmere (2 Classes)	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr 2.5 hr	7 4
1/24	Citrus Springs	Confined Space Permits	1.0 hr	10
1/26	Deltona (2 Classes)	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr 2.5 hr	23 19
1/27	Lehigh Acres	Electrical Panel Boxes	.5 hr	4
1/27	Apopka (Engineering)	Office Safety	.5 hr	23
1/31	Seaboard	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	4
1/31	Lakeland	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	2
2/1	University Shores	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	11
2/1	Lehigh Acres	Backhoe Operations	.5 hr	6

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SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
2/2	Apopka (Corporate Services)	Office Ergonomics	.25 hr	18
2/2	Pomona Park	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	5
2/3	Lehigh Acres	Scaffold Safety	.5 hr	4
2/8	Marco Island (2 Classes)	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr 2.5 hr	16 12
2/9	Lehigh Acres (2 Classes)	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr 2.5 hr	16 15
2/10	Apopka (Operations)	Safety Plan	1.0 hr	15
2/10	Lehigh Acres	Manhole Entry, Use of Ladders	.5 hr	4
2/14	Spring Hill	Stress and Safety	.5 hr	32
2/14	Lehigh Acres	Gasoline Handling Safety	.5 hr	4
2/14	Sugar Mill Woods	Stress and Safety	.5 hr	5
2/14	Leilani Heights	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	5
2/15	Lehigh Acres	Hearing & Sight Protection	.25 hr	6
2/15	Apopka (Make-up)	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	3

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SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
2/17	Lehigh Acres (Wastewater Plant)	Safety Equipment/Rescue	.5 hr	4
2/20	Lehigh Acres	Heavy Equipment Safety (Front end Loaders)	.5 hr	4
2/20	Seaboard	Vehicle Accident Reporting	1.0 hr	4
2/21	Citrus Springs	Confined Space Equipment, Gas Detector Tripod, SCBA, and Fall Protection	1.0 hr	10
2/21	Marion Oaks	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	14
2/21	Lehigh Acres	Workzone Traffic Control	.5 hr	6
2/22	Citrus Springs	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	11
2/23	Spring Hill (2 Classes)	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr 2.5 hr	14 14
2/24	Apopka (Operations)	Respiratory Protection	1.0 hr	13
2/24	Apopka (Engineering	Stress Management	.5 hr	23
2/24	Lehigh Acres	Traffic Workzone Safety	.25 hr	4
2/28	Woodmere	Confined Space Entry Equipment	.5 hr	8

SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
3/2	Lehigh Acres	Back Injury Prevention, Lifting Techniques	.5 hr	3
3/3	Marco Island	Back Injury Prevention, Lifting Techniques	.5 hr	11
3/3	Lehigh Acres	General First Aid	.25 hr	4
3/6	Lehigh Acres	Protective Clothing	.5 hr	4
3/6	Spring Hill	Near Misses	.5 hr	31
3/7	Sunny Hills	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	3
3/8	Lehigh Acres	Back Injury Prevention, Lifting Techniques	.5 hr	6
3/13	Marco Island	Traffic Workzone Safety	.5 hr	4
3/14	Apopka (Make-up)	SSU Safety Plan, Bloodborne Pathogens, Respiratory Protection (Part 1)	2.5 hr	6
3/14	Sugar Mill Woods	Near Misses	.5 hr	5
3/14	Lehigh Acres	Child Safety Supervision	.5 hr	4
3/15	Lehigh Acres	First Aid	.5 hr	6
3/15	Lehigh WWTP	First Aid	.5 hr	5
3/17	Marco Island	Excavation Safety	.5 hr	13

EXHIBIT (RAT-2)
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SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
3/20	Lehigh Acres	The Hazard of Horseplay	.5 hr	5
3/20	Lehigh WWTP	Lifting Techniques	.5 hr	5
3/21	Citrus Springs	Confined Spaces, Electrical Safety	1.0 hr	8
3/22	Lehigh Acres	First Aid	.5 hr	7
3/22	Deltona (2 Classes)	Chlorine Safety	2.5 hr 2.5 hr	12 10
3/22	Woodmere	CPR & First Aid	.5 hr	
3/22	Seaboard	Computer Safety	.5 hr	5
3/23	Apopka (Qtrly Mngrs Mtg)	Safety Motivational (Video: The Safety Secret)	.5 hr	44
3/24	Lehigh WWTP	First Aid for Eye Emergencies	.5 hr	6
3/27	Marco Island	Video: "A Life Saving Experience"	.75 hr	8
3/28	Apopka (Safety Training Reps.)	Training the Safety Trainer	6.0 hr	16
3/29	University Shores	Chlorine Safety, Handling	1.5 hrs	8
3/31	Apopka (Operations)	Safety Motivational (Video: The Safety Secret)	.75 hr	12
3/31	Apopka (Engineering)	Bloodborne Pathogens	1.0 hr	23

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SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
3/31	Marco Island	Shoring and Trenching	.75 hr	8
3/31	Lehigh WWTP	Fire Extinguishers	.5 hr	6
4/04	Lehigh WTP	"Percentages Have a Point"	.5 hr	4
4/4-5	Spring Hill	Emergency Evacuation Procedures	.5 hr	33
4/05	Fern Terrace	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr	5
4/06	Marco Island	Basic Electrical Safety, Lockout/Tagout	.5 hr	12
4/07	Lehigh WWTP	Sunstroke	.5 hr	7
4/11	Seaboard	On the Job Injuries	.5 hr	7
4/12	Lake Gibson	On the Job Injuries	.5 hr	4
4/12	University Shores	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr	8
4/12	Lehigh WTP	First Aid for Infections	.5 hr	5
4/14	Marco Island	"The Key to Safety"	.5 hr	9
4/17	Lehigh WWTP	Personal Protective Equipment	.5 hr	7
4/17	Deltona (Laboratory)	General Lab Safety	.5 hr	4

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SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
4/17-18	Keystone Heights	Hazardous Materials Incidents/ Response Procedures	8 hr	4
4/18	Deltona Lakes (2 Classes)	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr 2.5 hr	13 14
4/19	Lehigh WTP	Drug Abuse	.5 hr	8
4/21	Marco Island	General Safety	.5 hr	11
4/24	Lehigh Acres WTP	"The,Don'ts of First Aid"	.5 hr	5
4/24	Sugar Mill Woods	Emergency Evacuation Procedures	.5 hr	5
4/25	Citrus Springs	Heat Stress, Bloodborne Pathogens	.5 hr	7
4/26	Marco Island (2 Classes)	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr 2.5 hr	17 9
4/27	Lehigh Acres (2 Classes)	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr 2.5 hr	15 7
4/28	Marco Island	Defensive Driving, Speed Limits	.5 hr	11
4/28	Apopka (Information Systems)	Office Ergonomics	.25 hr	12
4/28	Lehigh Acres WWTP	Vehicle Safety	.5 hr	7
4/28	Woodmere	Truck Safety	.5 hr	4
5/02	Putnam County	Safety Inspection Report	.75 hr	4

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SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
5/02	Marion Oaks	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr 2.5 hr	11
5/03	Citrus Springs	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr 2.5 hr	9
5/04	Spring Hill (2 Classes)	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr 2.5 hr	12 17
5/08	Lehigh Acres WTP	Stepladder Safety	.5 hr	5
5/09	Marco Island	Heat Stress Management	.5 hr	13
5/10	Lehigh Acres WWTP	Protecting Children by Securing Equipment & Hazards of Horseplay	.5 hr	6
5/10	Seaboard	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr	6
5/10	Woodmere	General Safety	.5 hr	5
5/12	Marco Island	Working with Hazardous Materials	.5 hr	9
5/15	Lehigh WTP	Tool Safety - "Watch Those Wrenches"	.5 hr	5
5/15	Lehigh WWTP	Front End Loader Safety	.5 hr	4
5/16	Martin County	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr	4
5/17	Amelia Island	Communicating for Safety	1.0 hr	6

EXHIBIT (RAT-2)
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SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
5/22	Marco Island	Accident Reporting and Investigation	.5 hr	6
5/23	Deep Creek	Handling Heat Stress	.5 hr	3
5/25	Burnt Store	Proper Removal of Manhole Covers	.25 hr	4
5/26	Marco Island	Heat Stress	.5 hr	15
5/26	Apopka (Operations)	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr	14
5/26	Apopka (Engineering)	Stress and Safety	.5 hr	27
5/30	Keystone Heights	Pre-Job Safety Checklist	.25 hr	4
5/30	Lehigh WTP	Hand Tool Safety	.5 hr	5
5/31	Citrus Springs	Employee Right-to-Know	.5 hr	10
5/31	Sunny Hills	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr	3
6/2	Marco Island	Safety and the Weather	.5 hr	10
6/5	Lehigh Acres WWTP	Workplace Housekeeping	.5 hr	5
6/6	Amelia Island	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr	6
6/7	Lehigh Acres WWTP	Accident Statistics	.25 hr	6

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SOUTHERN STATES UTILITIES
1995 SAFETY TRAINING SUMMARY (CONTINUED)

DATE	LOCATION	TOPIC/S	DURATION	NO. OF ATTENDEES
6/6	Lehigh Acres WTP	Fire Extinguishers	.5 hr	5
6/6	Spring Hill	Safety Signs	.5 hr	18
6/7	Jacksonville (2 Classes)	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr	4 5
6/8	Pomona Park	Lockout/Tagout, Confined Space Entry, Heat Stress	2.5 hr	6
6/13	Apopka	New,Employee Safety Orientation	1.0 hr	16
6/13	Fl. Cent. Comm. Pk.	Near Misses	.5 hr	2
6/13	Sugar Mill Woods	Safety Signs	.5 hr	4
6/14	Lehigh Acres	First Aid for Infections, & First Aid "Do's & Don'ts"	.25 hr	6
6/16	Lehigh Acres WTP	Handout - 3 Strikes & You're Out	.5 hr	4
6/19	Marco Island	Personnel Protective Equipment, Safety Goggles, & the Hazard of Loose Clothing Around Machinery	.5 hr	15

TOTAL MANHOURS DOCUMENTED: 1,647.5

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