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July 12, 1996

HAND DELIVERY
Ms. Blanca S. Bayo, Director
Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-1850

RE: Docket No. [redacted]
Application by PALM COAST UTILITY CORPORATION
for a rate increase in Flagler County, Florida

Dear Ms. Bayo:

Enclosed on behalf of Palm Coast Utility Corporation are an original and fifteen copies of the following:

ACK ✓
AFA 5
APP ____
CAF ____
CMU ____
CTR ____
EAG ____
LEG Edmonds
LIN 3 to org.
OPC ____
RCH ____
SEC 1
WAS ____
OTH ____

1. Supplemental Rebuttal Testimony of Frank Seidman, along with Exhibits FS-14 and FS-15; Document no 07344
2. Motion for Leave to Prefile Supplemental Exhibits; - Document no 07345
3. Supplemental Exhibit FS-13B; Document no 07346
4. Supplemental Exhibit CDS-5. Document no 07347
5. our Certificate of Service.

Please acknowledge receipt of the foregoing by stamping the enclosed extra copy of this letter and returning same to my attention. Thank you for your assistance.

Very truly yours,

B. Kenneth Gatlin

B. Kenneth Gatlin

BKG/met
Enclosures

RECEIVED & FILED
FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE
07344 JUL 12 96
FPSC-RECORDS/REPORTING

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for rate increase in) Flagler County by PALM COAST) UTILITY CORPORATION)	Docket No. 951056-WS Filed: July 12, 1996

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the Supplemental Rebuttal Testimony of Frank Seidman, along with Exhibits FS-14 and FS-15, a Motion for Leave to Prefile Supplemental Exhibits, Exhibit FS-13B, Exhibit CDS-5, have been furnished by hand delivery to Mr. Stephen C. Reilly, Associate Public Counsel, Office of Public Counsel, 111, W. Madison Street, Room 812, Claude Pepper Building, Tallahassee, Florida 32399-1400, to Mr. Scott Edmonds, Esquire, Division of Legal Services, Florida Public Service Commission, 2540 Shumard Oak Blvd., Tallahassee, Florida 32399-0850, and to Mr. Richard D. Melson, Esquire, Hopping Green Sams & Smith, 123 South Calhoun Street, Tallahassee, Florida 32314, and by U.S. Mail to Mr. Albert J. Hadeed, County Attorney, 1200 East Moody Blvd. #11, Bunnell, Florida 32110-9764, on this 12th day of July, 1996.

Respectfully submitted,

B. Kenneth Gatlin
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Attorneys for
PALM COAST UTILITY CORPORATION

SUPPLEMENTAL REBUTTAL TESTIMONY OF FRANK SEIDMAN
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
REGARDING THE APPLICATION FOR INCREASED RATES FOR
PALM COAST UTILITY CORPORATION
IN FLAGLER COUNTY
DOCKET NO. 951056-WS

Q. Please state your name, profession and address.

A. My name is Frank Seidman. I am President of Management and Regulatory Consultants, Inc., consultants in the utility regulatory field. My mailing address is P.O. Box 13427, Tallahassee, FL 32317-3427.

Q. Have you previously submitted direct and rebuttal testimony in this proceeding?

A. Yes.

Q. What is the purpose of your supplemental rebuttal testimony?

A. To respond to the direct testimony of Mr. Ted L. Biddy as revised June 28 and corrected at the public hearing on July 2 with regard to allegations of excess flushing and excess infiltration and inflow.

FLUSHING

Q. Mr. Biddy, at page 6 of his June 28 revised testimony represents that the amount of flushing at Palm Coast is extraordinarily high. Do you agree with his assessment?

A. No. The amount of flushing carried out at Palm Coast is the amount necessary to maintain a high quality of water for all of PCUC's customers, wherever they are located, and to meet state and federal standards. The amount of flushing experienced in the last three years, expressed as a percent of water pumped, is the lowest it has been since 1989. Exhibit ____ (FS-14) is a comparison of the percent water unaccounted for and used for flushing and other identifiable purposes, from 1988 through 1995.

Q. Exhibit ____ (FS-14) shows a jump in flushing beginning in 1989. Did some event occur that triggered that increase?

A. Yes. Around 1988, service was introduced to the beachside portion of PCUC's service area. Mains were extended to serve these developments and individual homes which are outside of the originally platted areas of Palm Coast. Since 1988,

approximately 25 miles of new mains have been added to serve the beachside and other areas. Subsequently, the flushing requirements increased because of distance to the beachside area and due to its sparsity of development. The percent of pumped water required for flushing peaked out in 1991 and has dropped and leveled off since then.

Q. If the flushing requirement for the beachside service area is excluded from the company's total flushing requirement, what happens to flushing as a percent of water pumped?

A. Excluding the beachside area, flushing as a percent of total water pumped drops to about 12%, as compared to 17% with beachside flushing for 1994 and 1995.

Q. Do any other factors affect the amount of flushing required to maintain the required levels of chlorine residuals in the system?

A. Yes. The fact that PCUC uses chloramine rather than chlorine to treat the water increases the amount of flushing necessary to maintain chlorine residuals. Residual levels are more difficult to maintain when chloramine is used as a disinfectant, however,

treatment with chloramine is necessary to control the level of trihalomethanes.

Q. Has PCUC explored any alternatives to flushing to maintain water quality?

A. Yes. PCUC has looked into adding chlorine booster stations. It is PCUC's conclusion that booster stations will help to some extent, but significant amounts of flushing will still be required. This is true because the Palm Coast area is large, with varying levels of density in its neighborhoods. PCUC does not dictate where its customers live, but regardless of where they live, they are entitled to good quality water.

Q. Do you agree with Mr. Biddy's opinion that the use of more than 5% of finished water for flushing is excessive?

A. No. I don't know how he can select an amount that fits all situations without regard to the characteristics of the system. The amount of flushing is to a large extent a function of system configuration, customer density and quantity and frequency of customer use. The characteristics of PCUC's service area result in a flushing

requirement that is greater than 5% of pumped water. It would be irresponsible for a utility to limit its flushing to a set amount when the circumstances warrant otherwise. PCUC is obligated by statute to provide safe water and the flushing required to provide safe water is not excessive.

INFILTRATION & INFLOW

Q. Do you agree with Mr. Biddy's conclusions regarding infiltration and inflow as shown on his Exhibit TLB 3.1, as amended at the July 2 hearing?

A. No. Mr. Biddy made several errors that significantly impacted his results. In theory, Exhibit TLB 3.1 only puts numbers to an approach that I had already addressed and taken issue with in my rebuttal. But the errors in Mr. Biddy's exhibits, both the June 28 and July 2 versions, significantly affect the conclusions to be drawn from it. When the errors are corrected, PCUC's infiltration and inflow are virtually the same as that allowed by Mr. Biddy for a new system, for infiltration alone.

Q. Would you please summarize your understanding of Mr. Biddy's Exhibit TLB 3.1, as amended at the July 2 hearing?

A. Yes. In Exhibit TLB 3.1., Mr. Biddy measures infiltration and inflow. He starts with a maximum three month average daily flow at the wastewater plant and subtracts the amounts of water returned to the plant for treatment by customers and by the membrane plant. He identifies the difference as infiltration and inflow. He then compares that amount to his chosen allowance of 200 gpd/inch dia.-mile and reaches a conclusion that infiltration and inflow is excessive.

Q. What was the first error that you found on Exhibit TLB 3.1?

A. I found that Mr. Biddy used the wrong amount for the water returned to the treatment plant by customers. Instead of using the total water sold to wastewater customers, he used only the water sold to residential customers. This resulted in a 312,000 GPD understatement of water sold to wastewater customers and a resulting overstatement of infiltration and inflow.

Q. Is this an obvious error?

A. No. The sales quantities in Mr. Biddy's Exhibit TLB 3.1 are stated in terms of GPD rather than gallons as they are in the source provided to Mr. Biddy. Mr. Biddy incorrectly references that source as PCUC's response to OPC Interrogatory No. 65. The correct source is PCUC's response to OPC's Request for Production of Documents No. 65. I had to convert the GPD to gallons in order to check it against the source we provided. When I did, it became obvious that Mr. Biddy had used only residential sales, and assumed it was total sales.

Q. Are there any other errors on Exhibit TLB 3.1?

A. Yes. In determining an allowance for infiltration based on footage of pipe, Mr. Biddy did not consider the footage for service laterals, another probable source of infiltration.

Q. Was that information available to him?

A. Yes. It was provided in response to OPC's Request for Production of Documents No. 35. That response showed 333,328 feet of 4 inch diameter laterals. By excluding service laterals, Mr. Biddy understates

the infiltration allowance, using his criterion, by 50,504 GPD.

Q. Did Mr. Biddy utilize the information on reject concentrate returned to the plant properly in his revised Exhibit TLB 3.1?

A. Yes. The exhibit, as verbally revised at the hearing on July 2, correctly reflects only the reject sent to the plant for treatment, not all of the reject.

Q. What is the result of correcting Exhibit TLB 3.1 for the errors you found?

A. When corrections are made for these errors, the amount of infiltration and inflow in the PCUC system is virtually the same as the amount that Mr. Biddy would allow for a new system for infiltration alone. As shown on my Exhibit ____ (FS-15), PCUC's infiltration and inflow is only 13,770 GPD, or 0.66% more than Mr. Biddy's allowance. PCUC's infiltration and inflow is equivalent to 205 gpd/inch dia.-mile, as compared to the 200 gpd/inch dia.-mile guideline for new lines that Mr. Biddy proposes, and the 500 gpd/inch dia-mile standard traditionally used by the Commission.

Q. Does that complete your supplemental rebuttal testimony?

A. Yes, unless OPC introduces additional changes.

Palm Coast Utility Corporation
Water Pumped, Sold and Unaccounted for

PALM COAST UTILITY CORPORATION
WATER PUMPED, FLUSHING AND UNACCOUNTED FOR

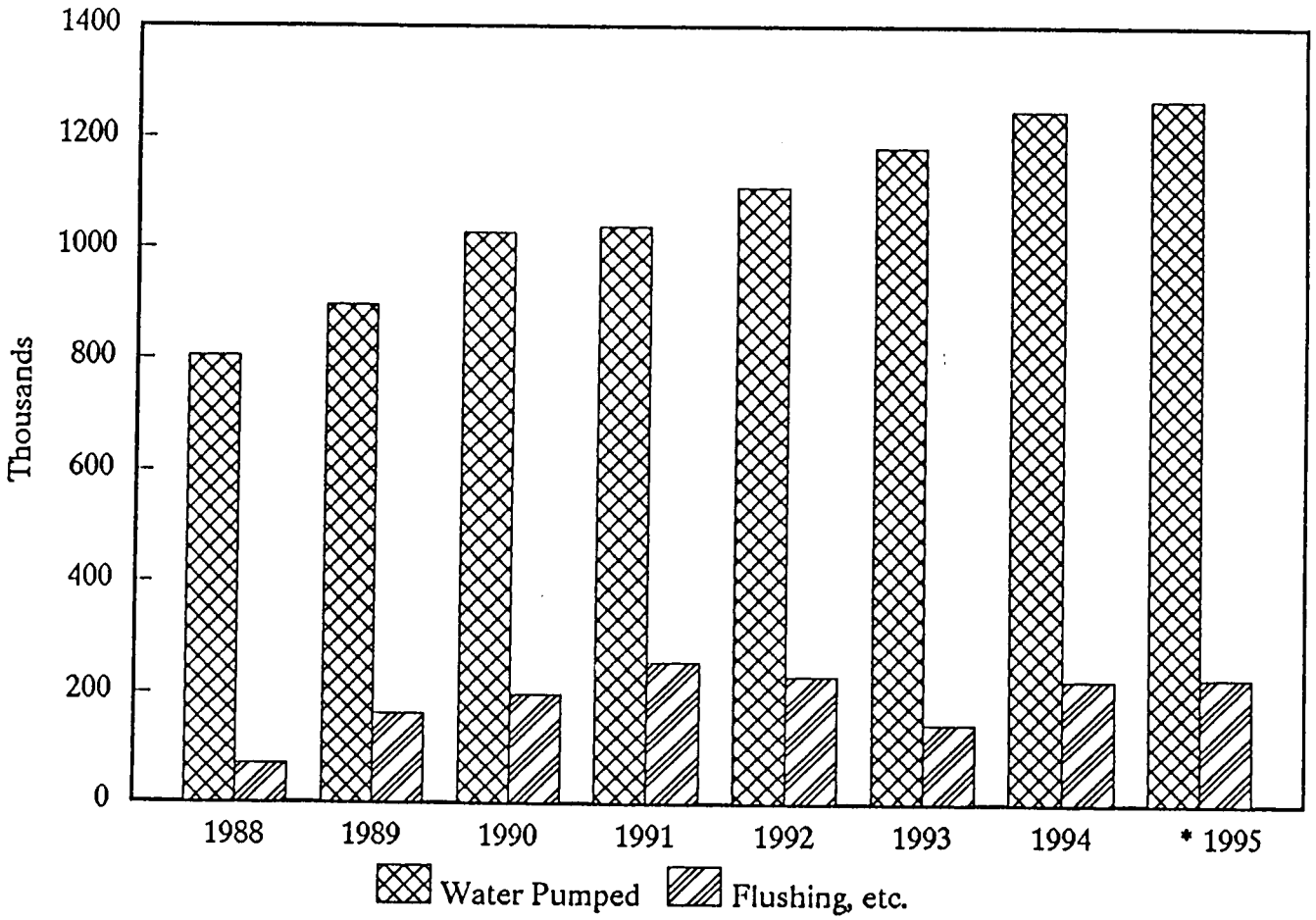
Year	Water Pumped	Other Uses Flushing, etc.	Pct Other	Pct. Unacct-fo	Total
1988	804,955	71,238	8.85%	17.99%	26.84%
1989	895,344	162,481	18.15%	12.00%	30.15%
1990	1,026,695	197,553	19.24%	10.75%	30.00%
1991	1,037,524	254,843	24.56%	11.37%	35.94%
1992	1,107,980	231,194	20.87%	9.79%	30.66%
1993	1,180,335	143,350	12.14%	8.78%	20.92%
1994	1,248,454	223,482	17.90%	8.37%	26.27%
* 1995	1,268,299	227,900	17.97%	5.23%	23.19%

* Flushing and water pumped normalized to remove approximately 23,000,000 gallons used in September, 1995 reflecting the one time chlorine disinfection of the chloramine treated system.

NOTE: The introduction of service to the beachside of the PCUC service area about 1988 caused an increased in the requirement for flushing to maintain water quality. Between 1988 and 1995, approximately 25 miles of new lines were added, a substantial amount of which was required to provide service to beachside [non-developer] customers. PCUC has investigated the additions of chlorine booster stations, and although they may reduce flushing requirements to some extent, significant amounts of flushing will continue to be required.

Although water pumped has increased annually since the early 1990's, flushing has dropped slightly and leveled off. [See graph].

PALM COAST UTILITY CORPORATION



Docket No. 951056-WS
Frank Seidman
Exhibit ____ (FS-15)

CORRECTIONS TO BIDDY EXHIBIT TLB 3.1

	(1)	(2) Biddy 6/28/96	(3) Biddy 7/2/96	(4) Biddy 7/2/96 with Corrections
1	Water Sold to WW Customers	1,249,000	1,249,000	1,561,866
2	85% Return *	1,061,650	1,061,650	1,374,545
3	Waste from sewer only customers	0	0	0
4	Total Wasewater flows from customers	1,061,650	1,061,650	1,374,545
5	I/I Allowance @ 200 gpd/in dia/mile	510,514	510,514	561,018
6	Max ADF of 3-month (GPD)	2,089,080	2,089,080	2,089,080
7	Reject concentrate	353,000	139,747	139,747
8	Excess I/I gpd	163,916	377,169	13,770
9	As pct of Max ADF	7.85%	18.05%	0.66%
	Restated calculation			
10	Max ADF of 3-month (GPD)	2,089,080	2,089,080	2,089,080
11	Less:			
12	Reject concentrate	(353,000)	(139,747)	(139,747)
13	Total Wastewater flows from customers	(1,061,650)	(1,061,650)	(1,374,545)
14	Infiltration & Inflow	674,430	887,683	574,788
15	I/I Allowance @ 200 gpd/in dia/mile	(510,514)	(510,514)	(561,018)
16	Excess I/I gpd	163,916	377,169	13,770
	Additional Infiltration Allowance for Service Laterals at 200 gpd/in dia/mile criterion			
17	333,328 feet of 4" PVC service laterals			50,504 gpd
18	Biddy Excess standard	510,514	510,514	561,018 gpd
19	Equivalent to	200	200	200 gpd/in dia/mile
20	PCUC Infiltration	674,430	887,683	574,788 gpd
21	Equivalent to	264	348	205 gpd/in dia/mile

* NOTE: The 85% return factor applies onlt to residential use. The return in column (4) reflects this correction.

RECHAM.WK3