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DOCKET NO. 960258-WS - [Proposed Rule 25-30.431, F.A.C.]

WITNESS: Direct Testimony of Robert J. Crouch, P.E. Appearing  
on behalf of the Florida Public Service Commission

DATE FILED: October 18, 1996

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FPSC-RECORDS/REPORTING

DIRECT TESTIMONY OF ROBERT J. CROUCH

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

3 A. Robert J. Crouch. Florida Public Service Commission, 2540 Shumard Oak  
4 Boulevard, Tallahassee, FL 32399.

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

7 A. I received a B.S. in Engineering from the Air Force Institute of  
8 Technology in 1970. I completed post graduate work in Industrial Management  
9 from the Industrial College of the Armed Forces and graduated in 1976. I was  
10 certified as a Professional Engineer in March, 1976. I retired from the U.S.  
11 Air Force in 1979 as a Lieutenant Colonel after 23 years military service,  
12 primarily as an engineer and a manager. From 1979 to 1984, I was employed by  
13 Southwestern Bell Telephone Company as a design engineer.

14 In September, 1984, I started working for the Florida Public Service  
15 Commission (PSC) as a supervisor of an engineering section in the Division of  
16 Communications. In April, 1987, I transferred to the Division of Water and  
17 Wastewater where I supervised engineers in investigations of regulated water  
18 and wastewater utilities.

19 I am currently, or have been in the recent past, a member of the Florida  
20 Engineering Society, the Texas Society of Professional Engineers, National  
21 Society of Professional Engineers, Society of Military Engineers, American  
22 Water Works Association, Water Environment Federation, and the Florida  
23 Pollution Control Association.

24 Q. By whom are you presently employed and in what capacity?

25 A. I am employed by the PSC as the Supervisor of Engineering in the

1 | Division of Water and Wastewater. As I stated earlier, I have worked for the  
2 | PSC for over twelve years and have been in my current position for nine years.

3 | Q. What are your general responsibilities at the PSC?

4 | A. As Supervisor of Engineering in the Division of Water and Wastewater,  
5 | I am responsible for the inspection and evaluation of regulated water and  
6 | wastewater utilities and for determining their compliance with applicable PSC  
7 | rules and state and federal regulatory standards. I also supervise assigned  
8 | engineers who conduct field evaluations and prepare recommendations for  
9 | Commission review.

10 | Q. Have you ever testified before?

11 | A. Yes. I have been accepted and testified as an expert witness in two  
12 | separate hearings held by the U.S. House of Representatives, Military  
13 | Appropriations sub-committee. Recently, I testified before this Commission  
14 | in Docket No. 910560-WS -- application for a rate increase by Tamiami Village  
15 | Utility, Inc. More recently, I testified in Dockets Nos. 920733-WS and  
16 | 920734-WS -- application for a rate increase by General Development Utilities,  
17 | Inc.; and 940847-WS -- application for a rate increase by Ortega Utility  
18 | Company.

19 | Q. What is the purpose of your testimony today?

20 | A. The purpose of my testimony is to discuss the methods and procedures  
21 | used by staff when calculating used and useful percentages and, specifically,  
22 | the determination of a margin reserve for a rate case.

23 | Q. Are used and useful methods, procedures and formulas, or margin reserve  
24 | calculations covered in the Florida Statutes or Public Service Commission  
25 | rules?

1 A. Not at this time. Staff is working on an update of Chapter 25-30 of the  
2 Florida Administrative Code, Water and Wastewater rules, which will include  
3 a detailed explanation of used and useful and the methodologies and formulas  
4 which may be used by regulated utilities when preparing their MFRs for a rate  
5 case. Margin Reserve is a major, and controversial, consideration when  
6 calculating used and useful percentages. The debate over whether to allow a  
7 margin reserve or not is argued in virtually every rate case that goes to  
8 hearing. Codification of a rule covering margin reserve could save a  
9 considerable amount of time, testimony, and rate case expense.

10 Q. Would you briefly explain the purpose of used and useful calculations  
11 when considering a request for a rate increase?

12 A. It is the intent of the Commission to allow a utility to recover,  
13 through authorized rates, charges and fees, the costs incurred in meeting its  
14 statutory obligations to provide safe, efficient and sufficient service. The  
15 utility's investment, prudently incurred, in meeting its statutory obligations  
16 shall be considered used and useful. On the other hand, investment not  
17 prudently incurred, and/or not required to provide safe, efficient and  
18 sufficient service to existing customers shall not be considered used and  
19 useful. Utilities should be encouraged to undertake planning that recognizes  
20 conservation, environmental protection, and economies of scale, which are  
21 economically beneficial to their customers over the long term.

22 Q. Why is it necessary for used and useful adjustments to be considered in  
23 a rate proceeding?

24 A. Used and useful adjustments to the investment in plant in service  
25 generally may be required when a utility is providing service in its territory

1 | but does not utilize the full design capacity of the system due to the  
2 | connected load being less than that expected at build-out or design load.

3 | Q. What concerns must the Commission balance in determining and  
4 | establishing the level of adjustments to used and useful plant in a rate  
5 | proceeding?

6 | A. The Commission must balance the fairness of the level of the investment  
7 | in plant that should be borne by the customers under a readiness to serve  
8 | concept with a degree of encouragement for the utility to make prudent  
9 | decisions and proper investment in plant necessary to serve its territory in  
10 | the context of effective long-range planning and least-cost design and  
11 | construction. On one hand, if the used and useful adjustment results in  
12 | excessive rate base relative to the test year customers, service rates will  
13 | be comparatively elevated and the potential for the utility to earn excess  
14 | returns during periods of growth will exist. Alternatively, if the used and  
15 | useful adjustment results in a rate base which is unfairly low, the utility  
16 | will have little incentive to employ effective long range planning and seek  
17 | economies of scale, the result being higher incremental costs and service  
18 | rates to future as well as current customers.

19 | Q. What does staff consider when calculating used and useful for a water  
20 | system?

21 | A. Historically, staff considers several factors when calculating used and  
22 | useful percentages for a water plant in a rate case. First, the capacity of  
23 | the plant being evaluated is determined. This capacity becomes the  
24 | denominator in the used and useful equations. Second, staff determines the  
25 | customers' demand placed upon the system; normally this is the maximum day

1 demand exclusive of fireflow, line breaks, etc. Third, staff considers a  
2 Margin Reserve or projected short term growth demand if requested and  
3 justified by the utility in its filing. Fourth, the utility's obligation to  
4 provide fire flow is reviewed. The utility may or may not be required to  
5 furnish sufficient water to satisfy the demand for fire protection. This  
6 demand is normally specified by county ordinance and may or may not be  
7 obligatory. Finally, staff considers the demand placed upon the system by  
8 non-revenue producing or unaccounted-for-water. This demand, when it exceeds  
9 normal ranges, is subtracted from other system demands prior to final  
10 calculation.

11 The used and useful numerator consists of adding the maximum day,  
12 justified margin reserve, and required and producible fire flow demands and  
13 subtracting excessive unaccounted-for-water. This numerator is then divided  
14 by the plant capacity to give the used and useful ratio for a water plant.  
15 Exceptions, when documented and justified, may be considered, however.

16 Q. How does staff calculate used and used for a wastewater treatment plant?

17 A. Whereas a water system must be capable of meeting customer demands at  
18 any instant, a wastewater plant with a surge (or equalization) tank has the  
19 ability to "save" peak flows or surges and treat those flows after the surge  
20 has passed. Surge (or equalization) tanks ease the peaks allowing the plant  
21 to be designed to meet an average daily flow. The permitted capacity of the  
22 plant is the denominator while the average daily flow from the maximum month  
23 plus a margin reserve (if requested and justified) minus excess infiltration  
24 or inflow goes in the numerator. The result is the used and useful ratio.  
25 Wastewater treatment plants without surge tanks may need to be addressed

1 | somewhat differently. The engineer needs to review the maximum flows that t.  
2 | plant is receiving, less excessive infiltration and inflow, plus requested and  
3 | justified margin reserve for the numerator in such instances.

4 | Q. Would you briefly describe margin reserve?

5 | A. Margin reserve is a factor in used and useful calculations which  
6 | recognizes that amount of plant and distribution or collection system that is  
7 | needed to be available to connect those customers who will be coming on line  
8 | after the test year. It would be unduly burdensome, unrealistic, as well as  
9 | very costly to a utility company to constantly be in some phase of  
10 | construction in order to add new customers. The utility is required to  
11 | provide service in its certificated service area when a customer is ready to  
12 | tie in to the system (Section 367.111, F.S.). In the early 1980's, the PSC  
13 | staff conducted research and found that the average planning, permitting, and  
14 | construction time for plant was 1.5 years, and for distribution/collection  
15 | systems, 1 year. These time frames allow for design, bids, actual  
16 | construction and clearance for service from the appropriate regulatory agency.  
17 | More recent cases, however, have shown that additional time is needed in order  
18 | to meet the more stringent requirements imposed by EPA and other regulatory  
19 | agencies such as the Florida Department of Environmental Protection.  
20 | Preliminary design through construction completion now takes much longer for  
21 | most wastewater plant construction or expansion projects. Current Commission  
22 | policy as specified in this proposed margin reserve rule is to allow eighteen  
23 | months for wastewater treatment plant planning and construction as a margin  
24 | reserve. Staff, however, is more comfortable with a three year Margin  
25 | Reserve due to the regulatory requirements mentioned above.

1 Staff's position is that the company should receive some recognition for  
2 the amount of plant it needs to hold in "reserve" (for the periods of times  
3 involved in new plant construction) so new customers can be added at any time.  
4 Some systems are "built out", consequently no more growth is anticipated.  
5 Built out systems would normally be considered 100% used and useful if they  
6 were properly sized. Those systems which are experiencing growth, however,  
7 should request and justify a margin reserve in their filing. When calculating  
8 margin reserve, staff attempts to use the growth pattern established over the  
9 most recent five years (the last of which is the test year in the rate case).  
10 The reason for this is to level out the growth spurts and slumps to reach a  
11 number that will be representative of anticipated growth in the future.  
12 Sometimes, due to circumstances, such as a newly constructed system, five year  
13 historical data are not available and staff uses the most reliable data that  
14 can be found. Linear regression applied to these data gives a reasonable  
15 projection of anticipated growth.

16 As a general rule, the amount of margin reserve should not exceed plant  
17 required to serve 20% of the existing customers. This cap on the amount of  
18 margin reserve included in rate base recognizes that there needs to be a limit  
19 to the amount of future plant that present customers should bear.

20 The basic premise behind the staff's normal recommendation for inclusion  
21 of margin reserve, when requested and justified, is to recognize the need for  
22 the utility to have some amount of capacity kept in reserve, beyond that which  
23 is demanded by the test year customers, to enable any new customer to connect  
24 during the next 1 to 1.5 (or 3 for wastewater treatment plants) years without  
25 constructing new plant.



1 Q. Has the PSC allowed a Margin Reserve in other Rate Cases ?

2 A. Yes. The Commission has consistently authorized a margin reserve in  
3 previous rate cases when it was requested and justified by the utility. For  
4 example: In Order No. 24733, issued July 1, 1991, in Docket No. 900521-WS,  
5 Lake Fairways Utility (FFEC-6), the Commission stated on page 5: "Our  
6 calculations for Margin Reserve are based upon the average growth in  
7 equivalent residential connections (ERCs) over the past five years. Margin  
8 Reserve should not exceed 20 percent of the number of ERCs served at the end  
9 of the test year." In Order No. PSC-93-1288-FOF-SU, issued September 7, 1993,  
10 in Docket No. 920808-SU, the Commission stated on page 12: "For these  
11 reasons, we find it appropriate to include a margin reserve in the treatment  
12 plant used and useful calculation. We shall recognize an eighteen month  
13 margin reserve period and calculate the needed capacity to be 400 ERCs per  
14 year, at 226 gpd/ERC, for 1.5 years." Commission Orders Nos. 24733 and  
15 PSC-93-1288-FOF-SU are attached to my testimony as Exhibit RJC-1

16 Q. Earlier, you referred to recent, more stringent requirements that have  
17 been imposed by DEP. Could you please elaborate?

18 A. Yes. DEP recently implemented Rule 62-600.405 F.A.C. which addresses  
19 planning for wastewater facility expansions. Let me digress for a moment and  
20 explain that there is no equivalent DEP rule governing water facility  
21 expansions at this time, only wastewater facilities are covered by the new,  
22 DEP expanded planning requirements. Rule 62-600.405 F.A.C. is attached to my  
23 testimony as Exhibit RJC-2.

24 Paragraph (5)(b) of this rule requires wastewater utilities to submit  
25 updated capacity analysis reports annually to DEP if the permitted capacity

1 will be equaled or exceeded within the next 10 years. Paragraph (8)(c)  
2 states:

3 If the initial capacity analysis report or an update of the  
4 capacity analysis report documents that the permitted capacity  
5 will be equaled or exceeded within the next three years, the  
6 permittee shall submit a complete construction permit application  
7 to the department within 30 days of submittal of the initial  
8 capacity analysis report or the update of the capacity analysis  
9 report.

10 Before a utility can submit a construction permit application, it must  
11 invest a considerable amount of time, and sometimes money, to obtain land,  
12 design, and plan any new expansions. For this reason, staff is recommending  
13 that the time authorized for a margin reserve for wastewater treatment  
14 facilities be expanded from 18 months to 36 months. At this time, staff  
15 recommends that the margin reserve period authorized for distribution and/or  
16 collection lines remain 12 months and for water treatment facilities remain  
17 18 months.

18 Q. Is there a difference between margin reserve and reserve margin?

19 A. Yes. Margin reserve is an economic consideration used by the PSC when  
20 determining rates for a utility. Reserve margin, also called reserve  
21 capacity, is a planning function used by DEP to determine the amount of  
22 capacity needed by a utility to function properly. DEP's reserve capacity is  
23 not the same as PSC's margin reserve. A legitimate reserve capacity may in  
24 fact be a prudent, wise investment by a utility, but it might not be totally  
25 included in the margin reserve period covered by the PSC.

1 Q. Are there other methods of recovering new construction expenses if a  
2 margin reserve is not allowed and that plant is considered non-used and  
3 useful?

4 A. Yes, there is another method available to the utility to recoup some  
5 prudent but non-used and useful expenditures. Allowance For Funds Prudently  
6 Invested (AFPI) is the economic concept developed in 1983, wherein the utility  
7 may show that the investment was legitimate and prudent even though it  
8 provided a capacity in excess of that required in the authorized margin  
9 reserve period. AFPI allows a utility to recover from new customers  
10 accumulated carrying costs on non-used and useful plant in the form of a one-  
11 time charge collected at the time on initial connection. AFPI is collected  
12 from new customers whereas margin reserve is collected from existing  
13 customers.

14 Q. Does this conclude your testimony?

15 A. Yes.

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for a rate increase ) DOCKET NO. 900521-WS  
in Lee County by FFEC-Six, Ltd. ) ORDER NO. 24733  
\_\_\_\_\_ ) ISSUED: 7/1/91

The following Commissioners participated in the disposition of this matter:

THOMAS M. BEARD, Chairman  
J. TERRY DEASON  
BETTY EASLEY  
GERALD L. GUNTER  
MICHAEL MCK. WILSON

NOTICE OF PROPOSED AGENCY ACTION  
ORDER GRANTING FINAL  
RATES AND CHARGES

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding pursuant to Rule 25-22.029, Florida Administrative Code.

BACKGROUND

FFEC-Six, Ltd. (FFEC or utility) is a Class B utility located in North Fort Myers, Florida. The FFEC water system serves approximately 1,297 customers and the wastewater system serves approximately 1,258 customers.

On December 3, 1990, the utility filed an application for increased water and wastewater rates. The information satisfied the minimum filing requirements (MFRs) and December 3, 1990 was established as the official date of filing. In accordance with Section 367.081(8), Florida Statutes, the utility has requested that this case be processed as a Proposed Agency Action (PAA).

DOCUMENT NUMBER-DATE

06552 JUL -1 1991

ORDER NO. 24733  
DOCKET NO. 900521-WS  
PAGE 5

No. 1-C. Those adjustments which are self-explanatory or essentially mechanical in nature are set forth in those schedules without any further discussion in the body of this Order. The major adjustments are discussed below.

#### Margin Reserve

Margin reserve represents capacity that the utility must have available, beyond that which is demanded by the test year customers, to enable the utility to connect new customers without plant expansion during the next 12 to 18 months which is the normal expected construction time to build new plant. Commission policy is to include a margin reserve in the used and useful calculation for both treatment plants and distribution and collection systems. This policy recognizes that utilities which are experiencing growth will continue to add customers to the system and that customers will pay plant capacity fees and connection fees for the availability of water and wastewater service. The Commission recognizes these service availability charges that will be paid as contributions-in-aid-of-construction (CIAC) and includes them in the projected test year, which impacts the utility's rate base.

Our calculations for margin reserve are based upon the average growth in equivalent residential connections (ERCs) over the past five years. Margin reserve should not exceed 20 percent of the number of ERCs served at the end of the test year.

Lake Fairways' water treatment plant provides treated water to the residents of Lake Fairways. The residents of Pine Lakes receive purchased treated water from Lee County. Due to the fact that Lake Fairways is essentially built-out, FFEC is requesting that no margin reserve be included in the used and useful calculations for the water treatment plant. FFEC has requested a margin reserve of 20 percent for its wastewater treatment plant, a margin reserve of 138 ERCs for the water distribution system and a margin reserve of 142 ERCs for the wastewater collection system.

Lake Fairways' wastewater treatment plant experienced an average growth of 19 percent from 1985 to 1989. Due to the fact that margin reserve should not exceed 20 percent, we agree with the utility and will include a margin reserve of 33,000 GPD.

For the Lake Fairways water distribution system, the average growth of ERCs over the last five years is 240 ERCs. However, since the utility only has the line distribution capacity to serve 1,551 ERCs and is already serving 1,413 ERCs, the total margin reserve added in ERCs should be limited to 138 ERCs.

ORDER NO. 24733  
DOCKET NO. 900521-WS  
PAGE 6

The wastewater collection system experienced an average growth of 247 ERCs over the last five years. However, as mentioned above, only 142 ERCs are needed until the system is at build-out. Therefore, we will include a margin reserve of 142 ERCs in the calculation of used and useful.

#### Used and Useful

We calculated used and useful for the water treatment plant by adding peak flow, required fire flow, margin reserve, less any excessive unaccounted for water, and then dividing by total capacity. The used and useful percentage of the wastewater treatment plant was calculated in a similar manner by adding the average flow of the peak month and the margin reserve, less any excessive infiltration, and then dividing by total capacity.

The used and useful percentages for the water distribution system and the wastewater collection system are calculated by determining the average number of connections to the system for the test year, adding a margin reserve and then dividing by the capacity of the present distribution or collection system.

Lake Fairways' water treatment plant's maximum daily flow exceeds the total capacity. Therefore, the water treatment plant is considered 100 percent used and useful.

The wastewater treatment plant was expanded from .150 MGD to .300 MGD in 1989. Before its expansion, the wastewater treatment plant was considered 100 percent used and useful. In the MFRs, the utility showed an average daily flow of .165 MGD for 1990. Since the average growth of the utility for the last five years exceeded 20 percent, we believe it appropriate to cap the margin reserve at 20 percent. This adds 33,000 GPD to the average daily flow and results in a used and useful percentage of 66 percent for the wastewater treatment system.

The utility calculated its used and useful percentage for the wastewater treatment plant using the flows approved by DER for the design capacity of the wastewater treatment plant expansion. The utility projected 1,358 mobile homes in 1990. The permitted flow per mobile home is 150 GPD. The utility also added in a margin reserve of 20 percent or 272 mobile homes. This brought the total projected flow for 1990 to 244,500 GPD. Dividing this flow by the capacity of 300,000 GPD yielded a used and useful percentage of 82 percent.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Application for Rate ) DOCKET NO. 920808-SU  
Increase by South Fort Myers ) ORDER NO. PSC-93-1288-FOF-SU  
Division of FLORIDA CITIES WATER ) ISSUED: 09/07/93  
COMPANY in Lee County. )  
\_\_\_\_\_ )

The following Commissioners participated in the disposition of this matter:

J. TERRY DEASON, Chairman  
SUSAN F. CLARK

APPEARANCES: B. KENNETH GATLIN, Esquire, Gatlin, Woods,  
Carlson & Cowdery, 1709-D Mahan Drive,  
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On behalf of Florida Cities Water Company

STEVE C. REILLY, Esquire, Office of Public  
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Madison Street, Tallahassee, Florida 32399-1400  
On behalf of the Citizens of the State of Florida

LEEANN KNOWLES, Esquire, Florida Public Service  
Commission, 101 East Gaines Street, Tallahassee,  
Florida 32399-0863  
On behalf of the Staff of the Commission

FINAL ORDER ESTABLISHING INCREASED RATES  
FOR WASTEWATER SERVICE

BY THE COMMISSION:

CASE BACKGROUND

Florida Cities Water Company, South Ft. Myers wastewater system, (FCWC or utility) is a class A utility which, as of June 30, 1992, provided wastewater service to 5,009 customers (a total of 7,469 equivalent residential connections (ERCs)) in Ft. Myers, Florida. This Commission last established rates for the South Ft. Myers Division of FCWC's wastewater system by Order No. PSC-92-0266-FOF-SU, issued on April 28, 1992.

ORDER NO. PSC-93-1288-FOF-SU  
DOCKET NO. 920808-SU  
PAGE 10

As explained earlier in this Order, we find it appropriate that 2.5 mgd be recognized as the available treatment plant capacity. To arrive at the used and useful percentage of the wastewater treatment plant and disposal facilities using the flow method, we divide the sum of the average daily flows and the margin reserve by the capacity of the plant. Accordingly, we have divided the sum of the 2.291 average daily flow and .136 mgd margin reserve (calculated below) by the 2.5 mgd capacity of the plant. The quotient is .97. Therefore, we find that the wastewater treatment plant and disposal facilities are 97 percent used and useful.

#### Margin Reserve

The utility requested a margin reserve in its MFRs, and it asserted that a margin reserve is a necessary investment which benefits all customers, including existing customers. The utility stated that a margin reserve equivalent to growth at 400 customers per year for 2.3 years, at .021 mgd, is appropriate in this case, and that we should recognize both permitting and construction lead time is required to activate additional capacity.

FCWC cited several past Commission orders which addressed the concept of margin reserve. In Order No. 22843, the Commission stated:

We believe that PCUC must have sufficient capacity to serve new customers at the time those customers connect. Section 367.111(1), Florida Statutes, requires each utility to provide service to the area described in its certificate within a reasonable time. The concept of margin reserve recognizes costs which the utility has incurred to provide service to customers in the near future. (Order No. 22843 [Palm Coast Utilities], p. 9)

This Commission has applied this same idea in other rate cases where margin reserve was considered:

Margin reserve represents capacity that the utility must have available beyond that which is demanded by the test year's customers. The purpose of the margin reserve is to enable the utility to connect new customers during the next eighteen months or so--the normal construction time for building new plant--without plant expansion. (Order No. PSC-92-0266-FOF-SU [Florida Cities, South Ft. Myers],



ORDER NO. PSC-93-1288-FOF-SU  
DOCKET NO. 920808-SU  
PAGE 11

p. 7 and Order No. 23660 [Florida Cities Golden Gate], p. 11)

According to Witness Smith, the second 2.5 mgd treatment train can be activated, which will allow the plant to reach its optimal capacity of 5.0 mgd. The principal concrete structures and most of the underground piping were installed in 1985 for the 5.0 mgd plant. The permitting process for the second train will take between nine and 15 months, and another 18 months would be required for construction of the additional equipment.

In the MFRs, the utility shows an average growth per year of approximately 400 ERCs. Witness Cardey supports this annual growth, explaining the average daily flow per ERC is 226 gpd. He refers to the Black and Veatch study which explains that 30 months are needed to activate the second 2.5 mgd of capacity at the existing plant.

OPC's witness Murphy testified that present customers should pay for a reasonable amount of excess capacity. In terms of margin reserve, he found 18 months to be reasonable. Witness Murphy testified that to plan, design, and permit a new 5.0 mgd plant would take three to four years. He did not believe the margin reserve period should begin when the planning and design work starts. The construction period would be about 18 months, indicating that the majority of time is taken up in planning and design. According to Witness Murphy, if the costs of construction are to be considered in ratemaking, those costs should be recognized when construction starts, not when planning begins. Calculating the amount of plant for the margin reserve would involve the gallons per day per ERC and the annual growth rate of ERCs for the 18 month period. This would be added to [average daily flow from] the maximum monthly flow.

There is no argument that the construction period for constructing a new plant is 18 months. Whether or not the design and permitting period should be included in the margin reserve period is a different argument, according to the record.

This Commission has a long standing practice of including a margin reserve period of 18 months, as presented by the above cited orders. We are persuaded by Witness Murphy's testimony that costs, and therefore investment, should be recognized when construction starts, not when planning begins. We also believe that the

ORDER NO. PSC-93-1288-FOF-SU  
DOCKET NO. 920808-SU  
PAGE 12

majority of investment is involved in construction, not in planning and design.

We have some concern about the utility's claim concerning the time required for activating the second 2.5 mgd train. According to Witness Smith's testimony, the time frames discussed appear to be liberal, allowing extra time for a worst case analysis. Construction time of eighteen months to activate the existing structure seems to be the very outside amount that it could possibly take. We do not believe that it is a normal time frame.

For these reasons, we find it appropriate to include a margin reserve in the treatment plant used and useful calculation. We shall recognize an eighteen month margin reserve period, and calculate the needed capacity to be 400 ERCs per year, at 226 gpd/ERC, for 1.5 years. This equates to additional demand and margin reserve of .136 mgd.

#### Used and Useful--Collection System

In the MFRs, the utility states that the on-site collection systems are designed and constructed in accordance with the regulations of the utility and DEP. Once constructed by the developers, those lines are deeded to the utility. FCWC concludes the collection system is 100 percent used and useful.

By Order No. PSC-92-0266-FOF-SU, issued April 28, 1992, this Commission found FCWC's collection system to be 100 percent used and useful. The utility had argued that since areas developed with the utility's funds had been fully developed and all other on-site lines were contributed, the collection system was 100 percent used and useful. (Order at p. 8) These circumstances remain the same in this case. Therefore, we find that the wastewater collection system is 100 percent used and useful.

#### Accrual of Depreciation on Non-used and Useful

The utility has proposed that we discontinue accruing depreciation on non-used and useful utility plant. The utility argues that because of slow growth, and the subsequent lack of collection of AFPI charges, it has lost the ability to recover its investment in plant. As a result of not being able to collect the carrying costs associated with the oversized plant that was built in 1986, the utility is now petitioning this Commission to change its long standing position on the accrual of depreciation on non-

points for the purpose of obtaining representative influent and effluent samples. These access points shall be dry points which can be reached safely.

(b) Provisions for flow measurements shall be in accordance with Chapter 62-601, F.A.C.

Specific Authority 403.061, 403.087 FS.

Law Implemented 403.021, 403.061, 403.062, 403.086, 403.087, 403.088 FS.

History--New 11-27-89, Amended 1-30-91, 6-8-93, Formerly 17-600.400.

**62-600.405 Planning for Wastewater Facilities Expansion.**

(1) The permittee shall provide for the timely planning, design, and construction of wastewater facilities necessary to provide proper treatment and reuse or disposal of domestic wastewater and management of domestic wastewater residuals.

(2) The permittee shall routinely compare flows being treated at the wastewater facilities with the permitted capacities of the treatment, residuals, reuse, and disposal facilities.

(3) When the three-month average daily flow for the most recent three consecutive months exceeds 50 percent of the permitted capacity of the treatment plant or reuse and disposal systems, the permittee shall submit to the Department a capacity analysis report.

(4) The initial capacity analysis report shall be submitted according to the following:

(a) For new or expanded wastewater facilities for which the Department received a complete construction permit application after July 1, 1991, the initial capacity analysis report shall be submitted within 180 days after the last day of the last month in the three-month period referenced in Rule 62-600.405(3), F.A.C.

(b) For wastewater facilities for which the Department received a complete construction permit application on or before July 1, 1991, the initial capacity analysis report shall be submitted when the next application for a permit to construct or operate wastewater facilities is submitted to the Department unless:

1. The three-month average daily flow for any three consecutive months during the period July 1, 1990 to June 30, 1991 exceeds 90 percent of the permitted capacity. In such cases, the initial capacity analysis report shall be submitted to the Department no later than January 1, 1992.

2. The three-month average daily flow for any three consecutive months during the period July 1, 1990 to June 30, 1991 exceeds 75 percent of the permitted capacity. In such cases, the initial capacity analysis report shall be submitted to the Department no later than July 1, 1992.

(c) In no case shall the initial capacity analysis report be required to be submitted before July 1, 1991 or before the three-month average daily flow exceeds 50 percent of the

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permitted capacity of the treatment plant or reuse or disposal systems, as described in Rule 62-600.405(3), F.A.C.

(5) The permittee shall submit updated capacity analysis reports to the Department according to the following:

(a) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will not be equaled or exceeded for at least 10 years, an updated capacity analysis report shall be submitted to the Department at five-year intervals or at each time the permittee applies for an operation permit or renewal of an operation permit, whichever occurs first.

(b) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next 10 years, an updated capacity analysis shall be submitted to the Department annually.

(6) The capacity analysis report or an update of the capacity analysis report shall evaluate the capacity of the plant and contain data showing the permitted capacity; monthly average daily flows, three-month average daily flows, and annual average daily flows for the past 10 years or for the length of time the facility has been in operation, whichever is less; seasonal variations in flow; flow projections based on local population growth rates and water usage rates for at least the next 10 years; an estimate of the time required for the three-month average daily flow to reach the permitted capacity; recommendations for expansions; and a detailed schedule showing dates for planning, design, permit application submittal, start of construction, and placing new or expanded facilities into operation. The report shall update the flow-related and loading information contained in the preliminary design report submitted as part of the most recent permit application for the wastewater facilities pursuant to Rules 62-600.710 and 62-600.715, F.A.C.

(7) The capacity analysis report shall be signed by the permittee and shall be signed and sealed by a professional engineer registered in Florida.

(8) Documentation of timely planning, design, and construction of needed expansions shall be submitted according to the following schedule:

(a) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next five years, the report shall include a statement, signed and sealed by a professional engineer registered in Florida, that planning and preliminary design of the necessary expansion have been initiated.

(b) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next four years, the report shall include a statement, signed and sealed by an engineer registered in Florida, that plans and specifications for the necessary expansion are being prepared.

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(c) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next three years, the permittee shall submit a complete construction permit application to the Department within 30 days of submittal of the initial capacity analysis report or the update of the capacity analysis report.

(d) If the initial capacity analysis report or an update of the capacity analysis report documents that the permitted capacity will be equaled or exceeded within the next six months, the permittee shall submit to the Department an application for an operation permit for the expanded facility. The operation permit application shall be submitted no later than the submittal of the initial capacity analysis report or the update of the capacity analysis report.

(9) If requested by the permittee, and if justified in the initial capacity analysis report or an update to the capacity analysis report based on design and construction schedules, population growth rates, flow projections, and the timing of new connections to the sewerage system such that adequate capacity will be available at the wastewater facility, the Secretary or Secretary's designee shall adjust the schedule specified in Rule 62-600.405(8), F.A.C.

Specific Authority 403.061, 403.087 FS.

Law Implemented 403.021, 403.061, 403.086, 403.087, 403.088, 403.0881, 403.101 FS.

History--New 1-30-91, Formerly 17-600.405.

#### **62-600.410 Operation and Maintenance Requirements.**

(1) All domestic wastewater treatment plants shall be operated and maintained in accordance with the applicable provisions of this chapter and so as to attain, at a minimum, the reclaimed water or effluent quality required by the operational criteria specified in this chapter, and to meet the appropriate domestic wastewater residuals management criteria specified in Chapters 62-2, 62-7, 62-640, and 62-701, F.A.C.

(2) All reuse and land application systems shall be operated and maintained in accordance with the applicable provisions of this chapter and the provisions of Chapter 62-610, F.A.C.

(3) All underground injection effluent disposal systems shall be operated and maintained in accordance with the applicable provisions of this chapter and the provisions of Chapter 62-28, F.A.C.

(4) Wetlands application systems shall be operated and maintained in accordance with the applicable provisions of this chapter and the provisions of Chapter 62-611, F.A.C.

(5) The operation of all treatment plants shall be under the supervision of an operator certified in accordance with Chapter 62-602, F.A.C. All facility operations shall provide for the minimum care and maintenance of the facility in accordance with Chapter 62-602, F.A.C.

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