DOCKET NO.: 950387-SU - Florida Cities Water Company

WITNESS: Direct Testimony Of Richard L.
Addison, Appearing on Behalf Of Staff

DATE FILED: November 6, 1998

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FPSC-RECORDS/REPORTING

## DIRECT TESTIMONY OF RICHARD L. ADDISON

- 2 | Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?
- 3 A. Richard Addison, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.
- 4 Q. BY WHOM ARE YOU PRESENTLY EMPLOYED AND IN WHAT
- 5 | CAPACITY?

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- 6 A. I am employed by the Florida Department of Environmental Protection 7 (FDEP) as a Professional Engineer in the Domestic Wastewater Section.
- 8 Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND QUALIFICATIONS?
- 9 A. I received my Bachelor of Science in Environmental Engineering from the
  10 University of Florida in August, 1979. I received a Master of Public
  11 Administration from Florida State University in December, 1987. I have been
  12 a registered professional engineer in the State of Florida since 1986.
- 13 | O. WHAT IS YOUR EMPLOYMENT HISTORY?
  - I was employed by the Florida Public Service Commission (FPSC) as an engineer involved in water and sewer regulation from October 1979 to January 1984. My responsibilities included the evaluation and review of rate applications of water and wastewater utilities under the jurisdiction of the FPSC. This involved field inspections of treatment plants and service areas, capital and operation/maintenance reviews of costs expenses for reasonableness, and evaluations of service quality, plant utilization, wastewater infiltration/inflow. for water unaccounted and service availability.
  - Since February 1984, I have been employed by FDEP. From February 1984 until February 1988, I was involved in the construction grants program for municipal wastewater works as delegated by the United States Environmental

- 1 | Protection Agency (USEPA) to the State of Florida. This included review of
- 2 user charge systems, sewer use ordinances, financial capability
- 3 demonstrations, sewer system evaluation surveys and facilities plans. From
- 4 February 1988 to the present. I have been in the Domestic Wastewater section
- 5 in Tallahassee.
- 6 0. WHAT ARE YOUR GENERAL RESPONSIBILITIES AT FDEP?
- 7 A. As a member of the Domestic Wastewater Section, I assist in development
- 8 of regulations and policies for FDEP's domestic wastewater program. I assist
- 9 | FDEP permitting staff in interpretation of rules and policies on domestic
- 10 wastewater management projects or issues. I also communicate with local
- 11 governments, the public, and the USEPA on domestic wastewater management
- 12 issues, as needed.
- 13 Q. HAVE YOU EVER TESTIFIED BEFORE?
- 14 A. Yes, I testified before the Division of Administrative Hearings (DOAH)
- 15 and the Commission while I was employed at the FPSC.
- 16 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY TODAY?
- 17 A. The purpose of my testimony is to discuss FDEP permitting procedures for
- 18 domestic wastewater treatment plants in Florida.
- 19 Q. WHO SPECIFIES THE TIME FRAME FOR DOMESTIC WASTEWATER PERMITTED FLOWS?
- 20 A. FDEP, based on the design capacity established by the permit applicant
- 21 and his design engineer. FDEP has concise definitions for "design capacity"
- 22 and "permitted capacity." Rules 62-600.200(19) and 62-600.200(62), Florida
- 23 Administrative Code (F.A.C.), clarify the design capacity and the flow
- 24 averaging period associated with the design capacity must be specified by the
- 25 applicant. Typically, applicants will base their design on annual average

daily flow (AADF), maximum monthly average daily flow (MMADF), or three-month 2 average daily flow (3MADF). Consistent definitions for these flow-related 3 terms are provided in FDEP rule. For example, use of an AADF for purposes of design in a beach community that receives a significant influx of seasonal 4 5 residents during a three to six-month period would not be appropriate. Time 6 frames should reflect seasonal variations in flows, if any. Rule 62-7 600.200(62), F.A.C., defines "permitted capacity," as the treatment capacity 8 for which a treatment plant is approved by FDEP. In accordance with the rule the time frame associated with permitted capacity must be specified in the permit. Circumstances under which FDEP may assign permitted capacities less 10 than the design capacity specified by the applicant are described in Rule 62-11 12 600.400(3), F.A.C., and include when reuse or disposal permitted capacity is 13 less than the design capacity or when the preliminary design report does not provide reasonable assurances that the proposed wastewater facility technology 14 15 will function as intended at the design capacity requested by the permittee.

- 16 Q. IS THE BASIS OR TIME FRAME FOR PERMITTED FLOWS SHOWN ON THE PERMIT
- 17 | ISSUED BY FDEP?
- 18 A. Yes, Rule 62-600.200(62), F.A.C., requires the FDEP domestic wastewater
- 19 permit specify a time frame associated with permitted capacity. This rule has
- 20 been in effect since 1991.
- 21 Q. WAS THE PUBLIC SERVICE COMMISSION MADE AWARE OF THIS CHANGE?
- 22 A. Yes, by letter dated July 30, 1992 from Richard Harvey to Charles Hill.
- 23 | The letter provided comments on a draft FPSC rule concerning used and useful
- 24 in rate cases.
- 25 Q. IF A PLANT IS RATED IN TERMS OF ANNUAL AVERAGE DAILY FLOW (AADF), CAN

1 | THE FLOWS TO THE PLANT EXCEED ITS AADF RATED CAPACITY DURING A MAXIMUM MONTH?

A. Yes, looking at flows only, a treatment plant would not be out of compliance until the total volume of wastewater flowing into a wastewater facility during any consecutive 365 days, divided by 365, exceeded the AADF. It should be noted that other parameters will be checked for compliance during this time, including CBOD, TSS, pH and disinfection.

O. WHY DID FDEP DEVELOP THE CAPACITY ANALYSIS REPORT CONCEPT?

A. A significant wastewater management problem in Florida involves overloaded wastewater facilities. Owners of domestic wastewater facilities must provide timely expansion and upgrade of their facilities to meet wastewater demands of a growing population within their service areas. Facilities that are not expanded in a timely fashion would be asked to treat volumes of wastewater that are greater than their capacities. This results in inadequate treatment and degradation of water quality in the receiving surface waters or ground waters.

Rule 62-600.405, F.A.C., contains requirements for capacity analysis reports (CARS). Reports are required once the 3MADF equals or exceeds 50% of a wastewater facility's permitted capacity. The 50% threshold was selected based on input from the rulemaking Technical Advisory Committee (TAC) together with the professional judgment of FDEP engineers in light of growth trends in Florida. (The TAC was a group of experts assembled by FDEP to help in development of the rule. It consisted of representatives of the Florida Engineering Society. The Florida Pollution Control Operators Association, The Florida Water and Pollution Control Operators Association (also representing a private utility), a public utility and representatives from two of FDEP's

District offices.) The 50% threshold was established to ensure that planning for the future expansions begins early enough that planning, design, and construction can be accomplished before capacities are exceeded.

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A capacity analysis report is a detailed assessment of population and flow projections as they relate to future needs for expansion of domestic wastewater facilities. The report features development of a schedule for planning, design, construction, and placing into operation of expanded facilities. This is a pollution prevention measure designed to ensure that permittees conduct the planning necessary to allow for timely expansion of their wastewater facilities. The timeframes established in the rule for submittal of initial capacity analysis reports as well as updates of the capacity analysis reports and for planning, design, and construction of expanded facilities were based on professional judgment and input from the TAC as well as knowledge of common timeframes associated with planning, design, and construction activities for such facilities. The 180-day timeframe for submittal of the initial capacity analysis report was established based on input from the TAC and allows for procurement of a consulting engineering firm as well as production of the capacity analysis report. Once required, the capacity analysis report normally would be updated annually. If the capacity analysis report demonstrates that the wastewater facility has at least ten years of useful life before the permitted capacity will be exceeded, the capacity analysis report must be updated only once every five years or whenever a permit application is submitted to FDEP.

Q. WHY DOES FDEP RULE 62-600.405, F.A.C., ON CAPACITY ANALYSIS PLANNING USE THE 3MADF AS THE BASIS TO DETERMINE WHEN A CAPACITY ANALYSIS REPORT IS

1 | NECESSARY, EVEN IF THE PLANT CAPACITY IS RATED IN TERMS OF AADF OR MMADF?

A. The 3MADF was selected based on input from the TAC together with the professional judgment of FDEP engineers. The 3MADF is used in this case as a cutoff for when the capacity analysis report is due. I was not on the TAC. However, it is likely that 3MADF was the best choice because choosing AADF would not account for facilities with seasonal variation in flow and choosing MMADF could force a facility into having to prepare a CAR prematurely.

Q. DOES THAT COMPLETE YOUR TESTIMONY?

A. Yes.

## BEFORE THE PUBLIC SERVICE COMMISSION

In re: Application for a rate )
increase for North Fort Myers )
Division in Lee County by )
Florida Cities Water Company - )
Lee County Division )

DOCKET NO. 950387-SU

Filed: November 6, 1998

## Certificate of Service

I HEREBY CERTIFY that a true and correct copy of Direct Testimonies and Exhibits of Richard Addison and Robert J. Crouch have been furnished by U.S. Mail this day of November, 1998 to:

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