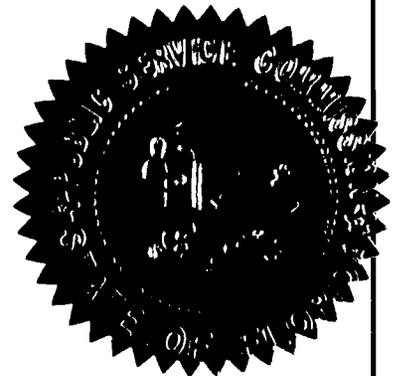


BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 070183-WS

In the Matter of:

PROPOSED ADOPTION OF RULE 25-30.4325,
F.A.C., WATER TREATMENT PLANT USED
AND USEFUL CALCULATIONS.



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VOLUME 1
Pages 1 through 175

PROCEEDINGS: HEARING

BEFORE: CHAIRMAN MATTHEW M. CARTER, II
COMMISSIONER LISA POLAK EDGAR
COMMISSIONER KATRINA J. McMURRIAN
COMMISSIONER NANCY ARGENZIANO
COMMISSIONER NATHAN A. SKOP

DATE: Tuesday, January 22, 2008

TIME: Commenced at 9:30 a.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: LINDA BOLES, RPR, CRR
Official FPSC Reporter
(850) 413-6734

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FPSC-COMMISSION CLERK

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16 Commission Staff.

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CHAIRMAN CARTER: Good morning. I call this hearing to order. I'd ask staff to please read the notice.

MS. GERVASI: Pursuant to notice, this time and place have been set for a full evidentiary hearing in Docket Number 070183-WS, In re: Proposed Adoption of Rule 25-30.4325, Florida Administrative Code, Water Treatment Plant Used and Useful Calculations.

CHAIRMAN CARTER: Okay. Let us now take appearances.

MR. FRIEDMAN: My name is Martin Friedman of the law firm of Rose, Sundstrom & Bentley, and we represent Utilities, Inc. in this matter. Utilities, Inc. does have two representatives present, Mr. Rick Durham, who is the Regional Vice President of Operations, and I think everybody knows John Williams, who is the Director of Communications. Thank you.

CHAIRMAN CARTER: Mr. Reilly.

MR. REILLY: Steve Reilly with the Office of Public Counsel on behalf of the ratepayers. I also have Andy Woodcock, who is our engineer and the witness that we're sponsoring today.

CHAIRMAN CARTER: Okay.

MR. HOFFMAN: Good morning, Mr. Chairman, Commissioners. My name is Ken Hoffman. To my left is Marsha Rule. We are with Rutledge, Ecenia, Purnell & Hoffman here in Tallahassee. We're here this morning on behalf of Aqua

1 Utilities Florida.

2 CHAIRMAN CARTER: Okay.

3 MS. GERVASI: And Rosanne Gervasi and Ralph Jaeger
4 appearing on behalf of the Commission.

5 CHAIRMAN CARTER: Okay. Staff, any preliminary
6 matters?

7 MS. GERVASI: Yes, sir. There are a few preliminary
8 matters, the first of which is an outstanding motion that needs
9 to be ruled on. This is Public Counsel's motion to file
10 revised recommended Rule 25-30.4325, F.A.C. Public Counsel
11 filed the motion on January the 9th. Aqua Utilities filed a
12 response in opposition to the motion. Oral argument on the
13 motion was not requested. Neither party requested oral
14 argument. Nevertheless, you may allow oral argument in your
15 discretion or you may rule on the motion as presiding officer
16 or have the full Commission rule, at your pleasure.

17 CHAIRMAN CARTER: Okay. Let me do this as a -- I
18 think I'm -- Commissioners, I think I'm going to handle this as
19 the presiding officer. Even though the parties did not request
20 oral argument on the motion, I think I'll give each side five
21 minutes to be heard on that and then I'll make my ruling then
22 on the preliminary matter about the outstanding motion.

23 I believe, Mr. Reilly, you'll be on first.

24 MR. REILLY: Okay. Thank you. You'll remember at
25 the prehearing conference the citizens indicated a desire to

1 file a revised ATW-2 which incorporated all of our suggested
2 changes. It is our belief that this would be a great aid to
3 the Commissioners and the parties in knowing the updated
4 version of our suggested changes all in one easy reference. My
5 suggestion, however, was met with some resistance by both the
6 utilities and staff until they could review the ATW-2 and see
7 exactly what it did provide. Aqua suggested I go ahead and
8 file a motion requesting it and provide copies so they'd have
9 plenty of time before the hearing to look at our proposed
10 changes, which I did. I provided a clean copy and I also
11 provided a strike and add version so they could see, you know,
12 how the revised rule, revised proposed rule was different than
13 the other. They -- I agreed to file this motion by the end of
14 business on January 9, which we did do.

15 I also pointed out at the prehearing conference that
16 I believe all of the changes were in response to utility and
17 staff's testimony and believed for the most part brought OPC's
18 positions actually closer to the rule's actual language. So I
19 did file my motion on the 9th. The only party who filed an
20 objection to our motion was Aqua, and in their response they
21 argued very vigorously that the revised rule was tardy, it was
22 procedurally inappropriate, it would irrevocably prejudice Aqua
23 and the other participants, that it constituted an 11th hour
24 revised rule, that it was a last-minute set of revised rule
25 proposals, that it really constituted a new set of OPC

1 proposals not reflected, not reflected in OPC's prefiled
2 testimony and exhibits, and that the revised recommended rule
3 provided sweeping revisions to its originally proposed rule and
4 that Aqua would be severely prejudiced by this belated
5 introduction. We respectfully argue that all these arguments
6 are without merit.

7 The filing of this revised rule is neither untimely
8 or prejudicial. Every single change included in revised ATW-2,
9 our revised proposed rule, is fully supported, fully supported
10 by timely filed rebuttal testimony, with the exception of two
11 things, and these were two things that were suggested to staff
12 in our pre prehearing conference that we held before the actual
13 prehearing conference. These two suggestions were that, and
14 this came, actually came from staff, they said our putting, and
15 I'll get the exact language here, our Paragraphs 8 and 9 should
16 be reversed. So there was no change in substance. It was just
17 change in order. And these two were at the end of our proposed
18 rule that dealt with, let me see, 8 and 9. They felt it would
19 be more appropriate to have firm reliable capacity of high
20 service pumping before the actual paragraph that dealt with the
21 used and usefulness of high service pumping. They suggested
22 that that would be a more natural order of the paragraphs.

23 The second involved no change in position but the
24 need to clarify the paragraph on how to calculate the used and
25 useful of high service pumping. "The used and useful of high

1 service pumping is determined" -- this is our existing
2 language, (9), "The used and usefulness of high service pumping
3 is determined by dividing the peak demand for high service
4 pumping as defined in this rule by the firm reliable capacity
5 of the high service pumps." So that was our original language.
6 That language did not change in any way.

7 There's no change in position. The problem came was
8 that with that language as defined in this rule -- the thing
9 which was earlier defined in this rule only went so far, and
10 this is where you'll see in our rule, it's (1)(d) where it does
11 speak about peak demand for water treatment includes. And
12 so -- and that's no change. We keep that exactly like it is.
13 But what we failed to do in this, in this earlier definition in
14 (1)(f) of our recommended rule, it does not explain how to
15 calculate peak hour demand and maximum day demand. So it was
16 just an omission of being more complete with high service
17 pumping as we had been fully complete with treatment.

18 So it's not an 11th hour change of position because
19 we propose to make exactly the same calculations. This is a
20 very important point, we propose to make the exact same
21 calculations of how to calculate these things that we are
22 recommending for calculating peak hour demand and maximum day
23 demand for treatment just to make it completely consistent. So
24 it's just actually literally filling in a little bit and
25 showing that we're completely consistent and that we're

1 asking -- basically one of our basic positions is we want a
2 separate calculation for high service pumping.

3 And we fully -- no change in position, but one last
4 element was we didn't take that extra step to show how you
5 calculate it. And in this little change we say we're going to
6 do it exactly the same as we're suggesting for treatment. That
7 is in my opinion a relatively minor clarification to more fully
8 explain how we recommend to you how to treat high service
9 pumping. That's the only semi-substantive minor addition, no
10 change in position, to make it consistent with treatment. The
11 other little change was a change of position which had no
12 substance.

13 Now as to everything else in the rule, all the other
14 little changes, additions and so forth, are absolutely and
15 completely supported by timely filed rebuttal testimony. Now
16 --

17 CHAIRMAN CARTER: That's a good place to break,
18 Mr. Reilly.

19 MR. REILLY: Okay.

20 CHAIRMAN CARTER: I'll give you one more second to
21 complete and wrap up.

22 MR. REILLY: I would say only this --

23 CHAIRMAN CARTER: Okay.

24 MR. REILLY: -- that the proper time to have
25 perhaps -- we do this as a courtesy actually. Instead of

1 tardy, it was two weeks before the hearing so everyone had it
2 to look at it.

3 Truthfully, I would suggest to the Commission as one
4 solution to this little problem is that we offer, just like
5 these other parties are offering modified exhibits to take into
6 account their rebuttal testimony, and we can do this either at
7 the time we put our witness on on direct; or even maybe more
8 appropriately when our witness is put on on rebuttal to say how
9 his testimony has changed, he'll say these changes I'm making
10 in my rebuttal testimony consequence changes in our revised
11 recommendation. And really probably that's the most
12 appropriate time to, to take up the revised rule.

13 CHAIRMAN CARTER: Thank you, Mr. Reilly.

14 Now, Mr. Hoffman, you're the only one --
15 Mr. Friedman, you're not to be heard on this; correct? You're
16 not in this motion, are you?

17 MR. FRIEDMAN: No, we didn't file a response.

18 CHAIRMAN CARTER: Thank you.

19 MR. FRIEDMAN: But we concur in Mr. Hoffman's
20 position.

21 CHAIRMAN CARTER: Thank you. Mr. Hoffman, you have
22 eight minutes.

23 MR. HOFFMAN: Thank you, Mr. Chairman. I'm going to
24 hand this one off to Ms. Rule. As you heard from, from
25 Mr. Reilly, you know, it's kind of a mess. You know, who can

1 follow really what he's talking about? But I can tell you this
2 before I hand it off to Ms. Rule, the theme that we have, the
3 problem that we have is you've got, as Mr. Reilly said, stuff
4 that's in his rebuttal and stuff that wasn't anywhere. Okay?
5 We have a right to file prefiled testimony responding to
6 assertions. So if something was in his rebuttal or something
7 wasn't even there, we've never had that right. So that's just
8 something to keep in mind. Ms. Rule is going to go through the
9 various arguments that, that we have presented to the
10 Commission in our response.

11 CHAIRMAN CARTER: Ms. Rule.

12 MS. RULE: Thank you. Actually Mr. Hoffman has
13 summarized them quite well. You know, this is an evidentiary
14 hearing. Public Counsel asked for an evidentiary hearing and
15 you granted it. Along with that came a procedural order back
16 in September setting due dates for testimony and exhibits and
17 up until January 9th those dates have been followed. And
18 that's less than two weeks before the hearing, and that's when
19 Public Counsel filed its motion seeking to revise its direct
20 testimony. I mean, a revised exhibit to its direct testimony
21 is a revision of its direct testimony.

22 What I'm hearing today is, well, this is really part
23 of our rebuttal. That's not what they've asked you to do.
24 They've asked you to permit them to revise their direct
25 testimony, and we object to a last-minute revision. We'd ask

1 you to deny it for several reasons. First, as we said in our
2 motion, Public Counsel -- I'm sorry, in our response, the
3 motion is late. It's two weeks before hearing. Public Counsel
4 really has offered you no reason in the motion or today why
5 this could not have been filed much earlier.

6 More importantly, however, this is an evidentiary
7 proceeding. You have always required prefiled testimony and
8 exhibits in your evidentiary proceedings, and the purpose is
9 not only to give staff and the parties and the Commission an
10 opportunity to get prepared for hearing and a meaningful
11 opportunity to respond.

12 The problem here is permitting what is essentially a
13 change in direct testimony so late in the hearing process
14 deprives Aqua and other Intervenors of the right to conduct any
15 discovery. We have to take Mr. Reilly's word here today what
16 has and hasn't changed. We don't have the opportunity to
17 conduct discovery into what those changes mean. This
18 introduces a great deal of uncertainty very late in the
19 process. You know, even today, the day of the hearing,
20 Mr. Woodcock's testimony is not final until you rule on the
21 motion. It's still a moving target for us. Permitting a
22 change in testimony at this date certainly deprives Intervenors
23 of the right to respond by filing additional rebuttal testimony
24 and exhibits. And this is important because, as you all know,
25 this is a very technical rule and Mr. Woodcock's testimony and

1 his revised exhibit propose technical changes.

2 And, finally, there's another reason why you should
3 not grant the motion. Aqua will be prejudiced if the motion is
4 granted but Public Counsel will not be prejudiced if the motion
5 is not granted. Posthearing briefs are due in this case on
6 February 19th, and at that point, of course, Public Counsel
7 will have the opportunity to make all of its recommendations to
8 you in whatever form it chooses. It will not be harmed by
9 denial of its motion and we ask that you deny it. Thank you.

10 CHAIRMAN CARTER: Thank you very kindly. We've heard
11 from both parties. Now I'd like to hear from staff on the
12 preliminary matter --

13 MS. GERVASI: Thank you, Mr. Chairman.

14 CHAIRMAN CARTER: -- with your recommendation.

15 MS. GERVASI: The staff has gone through the proposed
16 revised exhibit and we have determined that starting from
17 Line 13 on Page 6 of OPC's revised exhibit and going to the end
18 of Page 7 is indeed a new calculation that we have not seen and
19 is not in OPC's testimony, either direct or rebuttal testimony.
20 And although staff appreciates OPC's effort to update its
21 recommended rule language to incorporate areas of agreement
22 among the parties and staff, which is what they told us they
23 would like to do at the prehearing, we believe that it is
24 prejudicial to include new language, that coming in at this
25 late stage in the process precludes the other parties and staff

1 from doing any kind of discovery or from filing testimony in
2 response to it. So our recommendation is to deny the motion
3 for that reason.

4 CHAIRMAN CARTER: Okay. Based upon the, both hearing
5 the parties and the recommendation from staff, we will deny the
6 motion. And let's move with our further preliminary matters,
7 staff.

8 MS. GERVASI: Thank you, Mr. Chairman. There are
9 four proposed stipulations that the parties and staff have set
10 forth and they are --

11 CHAIRMAN CARTER: This involves -- Commissioners,
12 excuse me for interrupting, this will involve all Commissioners
13 from this point further. That was a preliminary matter that
14 was primarily with the Chair, but we are all on board now. You
15 may proceed.

16 MS. GERVASI: The four proposed stipulations appear
17 on Pages 20 and 21 of what has been marked as a Draft
18 Prehearing Order. That Prehearing Order is in the process of
19 being filed in this form. And we recommend that those four
20 proposed stipulations be approved.

21 CHAIRMAN CARTER: Okay. The -- are the parties, are
22 the parties in agreement with these proposed stipulations? Any
23 party -- all parties are in agreement? Mr. Reilly?
24 Mr. Hoffman? Mr. Friedman?

25 MR. HOFFMAN: Yes, sir.

1 CHAIRMAN CARTER: Commissioners, any questions or
2 comments on the proposed stipulations found on Pages 20
3 and 21 of the proposed Prehearing Order? Commissioner Edgar.

4 COMMISSIONER EDGAR: Mr. Chairman, if there is -- if
5 there are no questions, I'm prepared to make a motion in favor
6 of the proposed stipulations for Issues 1, 9, 12 and 13.

7 COMMISSIONER McMURRIAN: Chairman.

8 CHAIRMAN CARTER: You're recognized. And seconded by
9 Commissioner McMurrian.

10 Commissioners, you've had a chance to hear the motion
11 and second, time to consider. All in favor, let it be known by
12 the sound of aye.

13 (Unanimous affirmative vote.)

14 All those opposed.

15 Okay. Staff, would you bring us back around to where
16 we should be now.

17 MS. GERVASI: Thank you. Yes, sir. I wanted to
18 point out that all the parties have waived cross-examination of
19 two of the staff witnesses, so they have been excused from
20 appearing today. That's witness Van Hoofnagle, who filed
21 testimony for staff, he's with the DEP, and also Witness Dwight
22 Jenkins with the St. Johns Water Management District has also
23 been excused. The parties have waived cross-examination of
24 those two witnesses.

25 We have handed out what we've labeled a Comprehensive

1 Exhibit List for entry into the record which I would like to
2 have marked as Exhibit 1.

3 CHAIRMAN CARTER: Show it done.

4 MS. GERVASI: This exhibit shows all of the parties'
5 and staff's prefiled exhibits. And the remaining exhibits, any
6 cross-examination exhibits will be offered into evidence as the
7 witness testifies, as well as the exhibits listed on the list
8 will be offered in at the, at the appropriate time.

9 CHAIRMAN CARTER: Thank you. Commissioners, we all
10 have the Comprehensive Exhibit List. Show that marked as
11 Exhibit 1.

12 (Exhibit 1 marked for identification.)

13 MS. GERVASI: Thank you. That, I believe, brings us
14 to opening statements, which you allowed up to ten minutes per
15 side.

16 CHAIRMAN CARTER: Okay. Did we decide on who's going
17 first? Mr. Reilly, I believe you're still --

18 MR. REILLY: I think they set me up first and then
19 I've got three people coming right behind me. If the first one
20 doesn't get me, then the next one will, I guess.

21 CHAIRMAN CARTER: Well, I mean, you're an able
22 advocate.

23 MR. REILLY: Well, I'll try.

24 CHAIRMAN CARTER: And you have ten minutes, sir.
25 You're recognized.

1 MR. REILLY: All right. Thank you very much. First,
2 the Citizens do appreciate the Commission's scheduling this
3 hearing and giving us an opportunity to present arguments and
4 testimony on how we believe this rule can be improved.

5 The Citizens recommend a methodology for calculating
6 used and useful for water treatment systems involving
7 separately evaluating the major components of water treatment,
8 which includes wells, storage and high service pumping.
9 Addressing each of these major components allows for a separate
10 accounting of the used and useful of each of the three major
11 components. So if there is a significant difference between
12 the used and useful of each of the components, it can be
13 accounted for and adjusted accordingly.

14 The used and useful for each component is derived by
15 comparing a component's capacity to a component's demand. The
16 used and useful percentage is essentially a fraction with the
17 demand numerator on the top with the capacity denominator on
18 the bottom of the fraction. To the extent the demand is
19 greater and the capacity is less, the fraction is higher and
20 the used and useful percentage is higher. To the extent the
21 demand is less and the capacity is greater, the fraction is
22 smaller and the used and useful is smaller.

23 Citizens believe it is important for the Commission's
24 new rule to fairly define and account for the demand that is
25 expected to be made in each of these three components by

1 current customers plus the statutory growth allowance, as well
2 as to fairly define and account for the capacity of each of
3 these three components that serve current customers in the
4 statutory growth.

5 The Citizens believe our recommendations concerning
6 the proposed rule will afford utilities the opportunity to
7 recover their prudent costs of providing sufficient quantity
8 and quality of water service to current customers and the
9 statutory growth allowance.

10 We all agree that water service is a vital,
11 life-sustaining commodity. As Florida's population grows, the
12 availability, the affordability of this vital service is
13 increasingly becoming a statewide concern. In light of this
14 issue of affordability it is very important that the
15 Commission's rule not require the overstating of the demand
16 numerator of the used and useful fraction and not require the
17 understating of the capacity denominator.

18 I'd like to briefly discuss just five subject areas
19 that we think are most important in this particular rule
20 proceeding. First, one of the most important issues in this
21 docket is the proposed rules definition for firm reliable
22 capacity of water treatment system and storage. While the
23 Citizens agree that the firm reliable capacity of a water
24 treatment system is equivalent to the pumping capacity of the
25 wells, excluding the largest well for those systems with more

1 than one well, we strongly disagree with expressing the
2 remaining capacity in gallons per day based only on 12 hours of
3 pumping. Arbitrarily reducing by one-half all of the remaining
4 capacity unfairly limits the capacity denominator of the used
5 and useful fraction for water treatment systems with storage.
6 We do not believe this 12-hour limitation to be applied to all
7 regulated water systems throughout the entire State of Florida
8 is either based on sound engineering principles or valid
9 environmental requirements.

10 Our proposal is that the remaining pumping capacity
11 should be rated based upon 24 hours of pumping, unless there is
12 a documented restriction of hours of pumping as required by the
13 water management district or other regulatory body in which the
14 restriction shall apply.

15 Rather than establishing this arbitrary limitation on
16 the capacity denominator of the used and useful fraction, our
17 water treatment -- for water treatment systems with storage,
18 the Commission should defer to its sister agencies with respect
19 to water -- with the respective water management districts to
20 prescribe these types of well limitations. After all, it is
21 the water management districts that have the expertise and the
22 specific information about each system, which is necessary to
23 establish well pumping limitations which are appropriate for
24 each and every specific water system.

25 The second matter which is very important to the

1 ratepayers is the proposed rule's multiple provisions provided
2 only to the utilities with opportunities to justify used and
3 useful, opportunities to justify used and useful calculations
4 which produce used and useful percentages that are higher than
5 what would be produced by the normal default provisions of the
6 rule. These can be found -- there are seven such examples and
7 they're found in paragraphs (3), (4)(a), (b) and (c), (6),
8 (10) and (11).

9 The Citizens believe that there should be a single
10 paragraph that provides all parties, the utilities, OPC and
11 staff, with an equal opportunity to propose alternative
12 calculations when specific facts of the case warrant a
13 deviation from the normal default provisions of the rule. Any
14 party, whether they be the utility, the Citizens or staff,
15 proposing an alternative calculation shall have the burden to
16 prove that the alternative calculation is more appropriate for
17 the specific case than the application of the normal default
18 calculation provided in the rule.

19 In several instances -- OPC has recommended in some
20 cases, and even staff and the utilities have agreed, that some
21 of the provisions in the proposed rule should be relocated to
22 this alternative calculation provision and we believe that's
23 really where it belongs.

24 Thirdly, Paragraphs (4)(a), (b) and (c) provide for
25 circumstances where a water treatment system shall be

1 considered 100 percent used and useful. The Citizens strongly
2 disagree that these circumstances should automatically cause a
3 treatment system to be considered 100 percent used and useful.
4 With the exception that a system that is built out and there is
5 no potential for expansion of the service territory and it's
6 prudently designed, then a system may be considered 100 percent
7 used and useful.

8 Fourth, Paragraph (1)(d) defines peak demand for
9 storage. The Citizens agree with the definitions provision to
10 exclude excessive unaccounted for water, its provision for
11 growth allowance and its fire flow provision, but we do
12 disagree basing peak demand for storage on maximum day flow
13 rather than 25 percent of maximum day flow. We believe the
14 latter provision is more appropriate and more fair to the
15 customers.

16 And, finally, the Citizens believe that the rule
17 should provide a separate used and useful calculation for high
18 service pumping, the rule should include a definition for high
19 service pumping, for peak demand for high service pumping, for
20 firm reliable capacity for high service pumping and a separate
21 used and useful calculation for used and useful pumping -- for
22 high service pumping. These are Issues basically 16 through 20
23 in your Prehearing Order.

24 A separate used and useful calculation of high
25 service pumping will not necessarily increase or decrease a

1 system's rate base, revenue requirement or resulting rates. It
2 will depend entirely upon the specific facts of the case, the
3 capacity of the pumps and the demand which is being placed on
4 them. Separate analysis of high service pumping will cause
5 either lower rates in some cases and higher rates in others.
6 But, nevertheless, we propose a separate calculation because
7 high service pumping is a separate and distinct component from
8 both treatment and storage. The calculation of storage has
9 nothing to do with high service pumping. Evaluating high
10 service pumps separate from storage is necessary to provide an
11 accurate calculation of used and useful and it can be done
12 relatively easily.

13 Again, thank you for this opportunity. Those are our
14 most important points and that concludes our opening remarks.

15 CHAIRMAN CARTER: Thank you, sir. If you feel
16 compelled, you still have two minutes to go.

17 MR. REILLY: I'll reserve that time.

18 CHAIRMAN CARTER: All right. I believe Mr. Hoffman
19 or Friedman, who's on second? Who drew the short straw?

20 MR. REILLY: I was going to say --

21 MR. FRIEDMAN: Mine is probably going to be brief,
22 the briefest.

23 CHAIRMAN CARTER: Wait one second. Mr. Reilly.

24 MR. REILLY: -- I used the extra two minutes on the
25 other argument. See, it all evens out.

1 CHAIRMAN CARTER: Good deal. Mr. Friedman.

2 MR. FRIEDMAN: Thank you, Mr. Chairman,
3 Commissioners.

4 I believe that the intent was to adopt a rule that
5 had the broadest applicability and thus would reduce rate case
6 expense while providing the flexibility to address unique
7 situations. We believe that the proposed rule accomplishes
8 that task. Although all of Utility, Inc.'s positions are not
9 incorporated in the proposed rule, Utilities, Inc. believes
10 that it is a reasonable compromise. While we would always like
11 to have everything our way, as would, I'm sure, each of you,
12 that's not generally reality. And thus Utilities, Inc. accepts
13 the proposed rule with the changes that everybody has
14 stipulated to as a reasonable compromise between the interests
15 of the citizens and the customers of these utilities and the
16 regulated industry, and we would ask that the rule as proposed
17 be adopted without changes to complicate it further. Thank
18 you.

19 CHAIRMAN CARTER: Okay. One second, Mr. Hoffman.

20 Mr. Hoffman, you're recognized.

21 MR. HOFFMAN: Thank you, Mr. Chairman. I'm going to
22 ask Ms. Rule to distribute just another copy of the proposed
23 rule that was approved by the Commission prior to the Public
24 Counsel's request for hearing. You have that. I think in your
25 notebooks it's an exhibit to Mr. Redemann's testimony. But

1 just in case you want to pull it up real quick, that's all that
2 is. It's just another copy of that proposed rule.

3 Mr. Chairman, let me begin by stating that Aqua
4 applauds the efforts of the staff over the course of the last
5 two years to essentially corral the affected parties and the
6 numerous positions and the numerous proposed rule language
7 alternatives and develop them into a proposed rule which we
8 think for the most part does an excellent job of balancing the
9 competing positions of the parties and developing methodologies
10 and principles, which, if adopted, we think will reduce the
11 amount of litigation on used and useful issues. And that is
12 really to the ultimate benefit of our customers who pay for
13 these costs of litigation through rate case expense.

14 I should also say that the proposed rule for the most
15 part codifies and reflects prior Commission orders and rulings,
16 which I think gives a level of consistency to the Commission's
17 approach in connection with this particular issue.

18 Now having expressed my client's admiration for the
19 proposed rule, you know, once the Office of Public Counsel
20 launched sort of a wholesale assault on the rule, we viewed
21 this as an opportunity to come before you and offer the expert
22 testimony of one of the renowned experts in the field, and
23 that's Mr. Guastella, to respond to the Public Counsel's
24 suggestions and to give you a limited set of suggested
25 alternatives to the Commission's proposed rule. And what I'd

1 like to do is just run very briefly through those, through
2 Aqua's alternative proposals.

3 And the first is in connection with Subsection
4 (1)(a). We happen to agree with the Office of Public Counsel
5 that high service pumps should be separated from storage
6 facilities for the purpose of identifying their cost and
7 percentage used and useful. Where we disagree with the Office
8 of Public Counsel is we believe that the used and useful
9 calculation for high service pumps cannot be reduced to a
10 simple formula and, therefore, we don't think there's a need
11 for a separate rule provision on this particular issue.

12 The staff witness, Mr. Redemann, has testified, will
13 be testifying in this case that in most cases we're talking
14 about a relatively small level of investment in connection with
15 the entire water treatment system when you're talking about the
16 high service pumps. And as Mr. Guastella will testify, there
17 are often times very system-specific factors such as the
18 configuration of the pipes, the specific operation of more than
19 one high service pump that really make it impractical and
20 inappropriate to try to put used and useful for high service
21 pumps into sort of, some sort of snapshot formula.

22 Secondly, we agree in part with the staff and parties
23 with the way in which the inclusion of fire flow is laid out in
24 the proposed rule. You can find that in Sections (1)(c) and
25 (1)(d). But we're suggesting that additional language is

1 appropriate here to allow recovery for what we call an
2 appropriate amount of fire flow. Why? To ensure that
3 utilities can recover the cost of fire flow requirements from
4 multiple hydrants throughout an entire service area. We think
5 it's critical in today's times that utilities recover the cost
6 of ensuring adequate fire flow throughout the entire service
7 area, throughout the entire system to combat incidents of
8 multiple fires and coincidental fires. Got to have that.

9 Third, we disagree with the staff proposed rule to
10 the extent it proposes to reduce peak demands by excessive
11 unaccounted for water. Mr. Guastella supports the proposition
12 that the cost of water treatment facilities does not go down if
13 the system's lost and unaccounted for water becomes excessive
14 over time. The costs to the facilities do not go down.

15 Aqua believes that any adjustments for excessive
16 unaccounted for water should be limited to operating expenses.
17 When it comes to plant, when it comes to water treatment
18 facilities, the more appropriate response, we believe, is to
19 order the utility to undertake a cost-benefit analysis to
20 determine if the cause of the excessive unaccounted for water
21 should be repaired, and, if so, they should fix it.

22 Fourth, we propose that peak demands, whether they're
23 expressed as maximum day or peak hour, should not be limited to
24 a rate setting test year because a rate setting test year has
25 no relationship to the real world engineering design of a water

1 treatment system. These systems are not designed by engineers
2 for a rate setting test year. Instead, they're designed for
3 the maximum demand, whether that occurs last year, the year
4 before, the year before that or during the test year.

5 Finally, we disagree with the provisions in the rule
6 which basically say that if there's an unusual occurrence on a
7 single max day or peak hour when you're determining peak
8 demand, that the utility should then move to the average of the
9 five highest days. We believe that consistency would have you
10 change this provision so that if there's an unusual occurrence
11 on the single max day, then the rule should say that the
12 utility would simply go to the next highest maximum day, so
13 long as there's not an unusual occurrence on the next highest
14 maximum day.

15 Those are our proposals. I appreciate your time, and
16 that concludes our opening remarks.

17 CHAIRMAN CARTER: Thank you very much.

18 Let me finish my note here. I believe that we've
19 completed our preliminary matters. We've had opening
20 statements of the parties, and we're now ready to swear in
21 witnesses; correct?

22 MS. GERVASI: Yes, sir. One thing.

23 CHAIRMAN CARTER: Yes, ma'am.

24 MS. GERVASI: I meant, I meant to offer in Exhibit 1
25 into evidence earlier and would like to offer that in at this

1 time. I don't believe there's any objection to that.

2 CHAIRMAN CARTER: No objections? No objections.
3 Show it done.

4 MS. GERVASI: Thank you.

5 MR. REILLY: Which exhibit?

6 MS. GERVASI: Exhibit 1.

7 CHAIRMAN CARTER: Exhibit 1, the Comprehensive
8 Exhibit List.

9 MR. REILLY: Okay. All right. Thanks. Okay.

10 MS. GERVASI: Thank you.

11 (Exhibit 1 admitted into evidence.)

12 CHAIRMAN CARTER: Okay. Any other preliminary
13 matters?

14 MS. GERVASI: No, sir.

15 CHAIRMAN CARTER: Any preliminary matters of any of
16 the parties?

17 Okay. Are all the witnesses here? I would ask all
18 the witnesses, would you stand and be sworn in, please. And
19 raise your right hand.

20 MS. GERVASI: There's one other witness, I believe.
21 Thank you.

22 CHAIRMAN CARTER: Do we have all witnesses? Calling
23 all witnesses.

24 (Witnesses collectively sworn.)

25 Okay. You may be seated.

1 Okay. Mr. Reilly, you are recognized.

2 MR. REILLY: Yes. We'd like to offer Mr. Woodcock to
3 the stand.

4 CHAIRMAN CARTER: Mr. Woodcock.

5 MR. REILLY: Would you -- are we ready?

6 CHAIRMAN CARTER: You're ready.

7 ANDREW T. WOODCOCK

8 was called as a witness on behalf of the Citizens of the State
9 of Florida and, having been duly sworn, testified as follows:

10 DIRECT EXAMINATION

11 BY MR. REILLY:

12 Q Okay. Would you please state your name and business
13 address for the record.

14 A My name is Andy Woodcock.

15 CHAIRMAN CARTER: One second. We can't hear you.
16 Could you pull the microphone a little closer or just move --

17 THE WITNESS: Is this better?

18 CHAIRMAN CARTER: That's much better.

19 THE WITNESS: Okay. My name is Andy Woodcock. My
20 business address is 201 East Pine Street, Suite 1000, Orlando,
21 Florida 32801.

22 BY MR. REILLY:

23 Q All right. Mr. Woodcock, did you prefile direct
24 testimony including attached exhibits in this docket?

25 A I did.

1 Q If I were to ask you the same questions posed in your
2 prefiled direct testimony, would your answers be the same as
3 outlined in your prefiled direct testimony filed on November 5,
4 2007?

5 A They would be.

6 Q Excuse me?

7 A They would be.

8 Q Well --

9 A I'm sorry. We're talking about exhibits also. I
10 apologize.

11 Q No. Actual testimony too, because I believe you
12 filed rebuttal testimony.

13 A Yes. I have filed rebuttal testimony in this case,
14 and it would be revised accordingly.

15 Q Repeat that again now. I guess my question is if I
16 asked you the same questions I posed to you in your prefiled
17 direct, would your answers be the same as you, as you made in
18 your direct testimony?

19 A No, they would not.

20 Q And in what way would they be different?

21 A They would be different to the extent that my
22 rebuttal testimony that's been filed in this alters my direct
23 testimony.

24 Q Okay. That is as to your testimony.

25 A Correct.

1 Q And do you continue to endorse and support the
2 exhibits in your prefiled direct testimony?

3 A With respect to Exhibit 2, there are several
4 revisions that occurred due to changes in my rebuttal
5 testimony. And there is also an additional change in Exhibit 2
6 to clarify the peak demands for high service pumping.

7 MR. HOFFMAN: I'm going to object and move to strike,
8 Mr. Chairman. We've already heard on this. I'm surprised that
9 Public Counsel is presenting this. You just ruled this morning
10 that that proposed revised Exhibit 2 to his direct testimony
11 would not be permitted into the record of this proceeding. So
12 I would move to strike that last statement. And I would, I
13 would further move that for the remainder of this proceeding
14 that the witness be precluded from testifying to the new
15 material in his proposed revised Exhibit 2 to his direct
16 testimony.

17 MR. REILLY: With all due respect, I believe the
18 Commission should afford the Citizens an opportunity to explain
19 what is in the revised exhibit and that it is, in fact,
20 supported completely by the -- but the appropriate time is at
21 the rebuttal testimony. I'm not sure what the wish of the
22 Commission is, but, but --

23 CHAIRMAN CARTER: The ruling stands. I'm going to
24 have to sustain the objection. The ruling stands, Mr. Reilly.

25

1 BY MR. REILLY:

2 Q Okay. So your answer is you do not support your
3 exhibit as, as stated except to the extent that your rebuttal
4 testimony --

5 A Correct.

6 Q Okay. All right. With the modifications that you
7 have described --

8 CHAIRMAN CARTER: I believe -- thank you,
9 Mr. Hoffman.

10 MR. HOFFMAN: Yes.

11 CHAIRMAN CARTER: I believe we want to not refer from
12 any of the information pursuant to our initial ruling, so just
13 conduct yourself in that manner.

14 MR. REILLY: Okay. Then I would say at this time I
15 would move Mr. Woodcock's prefiled direct testimony be inserted
16 into the record as though read with the qualifications that he
17 made as to the fact that his prefiled direct testimony is
18 obviously modified by his properly filed rebuttal testimony.

19 MR. HOFFMAN: I'm going to object to that, Mr.
20 Chairman, with all due respect. This is getting muddled again.
21 You've already made a ruling with respect to the proposed
22 revised Exhibit 2 to Mr. Woodcock's prefiled direct testimony.
23 Now it was the Public Counsel who wanted to separate rebuttal
24 from direct testimony in this proceeding. Now it looks as
25 though they're trying to cure the problems with their revised

1 exhibit, with their Exhibit 2 by incorporating the rebuttal
2 testimony so they can make arguments later in their posthearing
3 brief, and I've got a real objection to this. I think that the
4 proper procedure, Mr. Chairman, with all due respect, is for
5 this witness to address his direct testimony and his exhibits
6 as filed and not attempt at this late juncture to make changes
7 to those by sort of vaguely incorporating things that are in
8 his rebuttal testimony.

9 MR. REILLY: May I respond?

10 CHAIRMAN CARTER: You're recognized, Mr. Reilly.

11 MR. REILLY: As to this exhibit, I'm not going to be
12 offering or sponsoring the AT-2 attached to the direct
13 testimony because it has changed materially. I'm not that
14 concerned about that. All I'm going to be moving in is his
15 testimony as filed but as qualified by his properly filed
16 rebuttal testimony.

17 Our pre, our prefiled procedure approved in this
18 order is that Public Counsel shall file direct testimony, that
19 the other parties will file their direct testimony responding
20 to that. And Public Counsel was offered -- in our procedure
21 was allowed to file rebuttal testimony that took into account
22 the testimony filed by the utilities and staff. That is
23 exactly what we have done. So at the proper time we will be
24 identifying and moving in our rebuttal testimony which was
25 filed exactly when it should have been.

1 So I am abandoning the ATW-1 and 2, but I believe
2 it's absolutely proper for me to file, to, to offer into
3 testimony this direct testimony as modified by the rebuttal
4 testimony that is, that we will be taking up at later time.
5 Now we don't have to -- we can -- I think we're going to be
6 addressing the rebuttal testimony and questions about the
7 rebuttal testimony at a later time. But it's important to
8 accept the direct testimony with the understanding that later,
9 properly filed, timely filed rebuttal testimony has been filed
10 in this docket with full notice and everything to everybody.
11 There's no -- that's absolutely consistent with our procedure.

12 So in light of your ruling, I am, I am not going to
13 worry about moving into the record the exhibit. It was really
14 offered as a convenience to the parties. We can make our
15 points with our testimony, we can make our points with our
16 rebuttal testimony, all timely, properly filed.

17 So I have -- in light of this ruling, I'm not going
18 to worry about moving into the record the exhibit. But we have
19 two sets of testimony properly filed and at the proper time --
20 and we have every right to move that and to make it available
21 for people to cross-examine. So what we are doing right now is
22 we're moving in his prefiled direct testimony, which he still
23 endorses in all respects except to the extent that it has been
24 modified by the rebuttal testimony which was timely and
25 properly filed. That is our, what we're asking to be moved

1 into the record.

2 CHAIRMAN CARTER: Mr. Hoffman, and then I'm going to,
3 then I'm going to look to staff.

4 MR. HOFFMAN: Very briefly, Mr. Chairman. This sort
5 of underscores the concern that we had when we opposed their
6 motion.

7 Mr. Reilly doesn't need to file that revised exhibit
8 to a large degree now if he's allowed to basically change his
9 direct testimony by incorporating his rebuttal testimony. If
10 you recall, one of the, one of the main concerns and objections
11 that we had to what Public Counsel was doing was that by
12 revising their direct we did not have our opportunity to
13 address that in prefiled rebuttal. So this to me, with all due
14 respect, is sort of an end around to your ruling. They will
15 have the opportunity, they have it right now, to put in their
16 direct testimony. And then -- and they wanted to keep it
17 separate. They'll have the opportunity to separately put in
18 their rebuttal testimony.

19 CHAIRMAN CARTER: Staff.

20 MS. GERVASI: Staff agrees with that. The witness is
21 on the stand now to take cross-examination based on his direct
22 testimony. To the extent that his rebuttal testimony modifies
23 his direct testimony, he will have an opportunity on
24 cross-examination on rebuttal. The testimonies will speak for
25 themselves.

1 CHAIRMAN CARTER: So the bottom line?

2 MS. GERVASI: Is that -- I don't know if there's a
3 motion on the table -- that his direct testimony should be
4 offered in as though read and then later his rebuttal should be
5 offered in as though read at the appropriate time.

6 CHAIRMAN CARTER: Okay.

7 MR. REILLY: And that's fine with Public Counsel. I
8 mean, just so the Commission understands we're -- there are two
9 sets of testimony. One is later in time. So we'll move in --
10 I'm asking to move in this direct testimony at this time. To
11 the extent he gets cross-examination questions that probes his
12 actual language of that direct testimony that's different, then
13 I assume he'll clarify that at the time. So we basically move
14 the direct testimony at this time. And when we approach the
15 rebuttal, we'll do the same at that time.

16 CHAIRMAN CARTER: So the testimony of the witness,
17 the direct testimony of the witness pursuant to the ruling
18 shall be entered into the record as though read.

19 MR. REILLY: And that's right. And to clarify, we
20 are moving in or asking to identify for cross-examination
21 purposes ATW-1, which is just merely his qualifications. We
22 will not bother to identify and move into the record
23 ATW-2 because, for the reasons you already know.

24 MS. GERVASI: And just for clarification of the
25 record, ATW-1 has been marked as Exhibit 2 on the Comprehensive

1 Exhibit List. ATW-2 has been marked as Exhibit 3.

2 (Exhibit 2 marked for identification.)

3 CHAIRMAN CARTER: Okay. We'll do -- we'll take care
4 of the exhibit as we normally do at the end of the testimony.

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1 **PREFILED TESTIMONY OF**
2 **ANDREW T. WOODCOCK PE, MBA**

3

4 **Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?**

5 A. My name is Andrew Woodcock. My business address is 201 East Pine St. Suite 1000,
6 Orlando, Florida.

7

8 **Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

9 A. I am employed by Tetra Tech as a Professional Engineer and Senior Project Manager.

10

11 **Q.WHAT IS YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE?**

12 A. I graduated from the University of Central Florida in 1988 with a B.S. degree in
13 Environmental Engineering and in 1989 with an M.S. degree in Environmental
14 Engineering. In 2001, I graduated from Rollins College with an MBA degree. In 1990, I
15 was hired at Dyer, Riddle, Mills and Precourt as an engineer. In May of 1991, was hired
16 at Hartman and Associates Inc., which has since become Tetra Tech. My experience has
17 been in the planning and design of water and wastewater systems with specific emphasis
18 on utility valuation, capital planning, utility financing, utility mergers and acquisitions
19 and cost of service rate studies. I have also served as utility rate regulatory staff for St.
20 Johns and Collier Counties in engineering matters. Exhibit ATW-1 provides additional
21 details of my work experience.

22

1 **Q. WHAT ARE YOUR PROFESSIONAL AFFILIATIONS?**

2 A. I am a member of the American Water Works Association, Water Environment
3 Federation and the Florida Stormwater Association.

4

5 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE A RATE REGULATORY**
6 **BODY AS AN ENGINEERING WITNESS?**

7 A. Yes, I testified in 2002 for the St. Johns County Regulatory Authority at a special
8 hearing in an earnings case against Intercoastal Utilities. I have also testified, although
9 not on engineering matters, before the Kentucky Public Service Commission. I provided
10 prefiled direct testimony in the FPSC Docket No. 060368-WS with regard to Aqua
11 Utilities Florida's application for a rate increase for systems located in 15 Florida
12 Counties. This case was withdrawn before it went to hearing.

13

14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

15 A. The purpose of my testimony is to offer my opinion on the FPSC staff proposed rule
16 25-30.4325 regarding Water Treatment and Storage Used and Useful Calculations. In
17 addition I recommend revised language to the rule in the areas where changes are needed.
18 My testimony begins with an overall discussion about the basis of my proposed changes
19 to the used and useful rules. Then I specifically discuss in detail each subsection of the
20 rule and any changes I recommend the Commission to make with regard to that
21 subsection. A revised version of the rule with my recommended changes is attached as
22 exhibit ATW-2.

1 **Q. WHAT DOCUMENTS HAVE YOU REVIEWED AND WHAT**
2 **INVESTIGATIONS AND ANALYSES HAVE YOU MADE IN PREPARATION**
3 **FOR YOUR TESTIMONY?**

4 A. I have consulted the current PSC Staff version of proposed rule 25-30.4325 Water
5 Treatment and Storage Used and Useful Calculations. I have also reviewed the
6 requirements for permitting and construction of public water systems embodied in
7 Chapter 62-555, Florida Administrative Code (FAC). I have also reviewed the following
8 documents which are considered engineering references for public water systems in
9 Chapter 62-555, FAC:

- 10 (1) *Water Quality and Treatment: A Handbook of Community Water Supplies*, Fifth
11 Edition, 1999, American Water Works
12 Association. Published by McGraw-Hill, Post Office Box 182604, Columbus, OH 43218-
13 2605.
- 14 (2) *Water Treatment Plant Design*, Third Edition, 1997, American Society of Civil
15 Engineers and American Water Works
16 Association. Published by McGraw-Hill, Post Office Box 182604, Columbus, OH 43218-
17 2605.
- 18 (3) *Recommended Standards for Water Works*, 1997 Edition, Great Lakes – Upper
19 Mississippi River Board of State Public
20 Health and Environmental Managers. Published by Health Research, Inc., Health
21 Education Services Division, P. O. Box 7126,
22 Albany, NY 12224

1 (4) *Water Distribution Systems Handbook*, 1999, Larry W. Mays, Editor in Chief.

2 Published by McGraw-Hill, Post Office Box

3 182604, Columbus, OH 43218-2605.

4

5 **Q. WILL YOU DESCRIBE THE STRUCTURE OF YOUR TESTIMONY?**

6 A. In this testimony I address the issues in the order presented by the proposed rule. I

7 refer to the rule as proposed by Staff and then provide my recommended language

8 followed by supporting discussion. Throughout my testimony I will refer to the Staff's

9 proposed rule as the "proposed rule". Any changes proposed as a part of this testimony is

10 referred to as either a "recommendation" or "recommended language". In cases where I

11 recommend additional paragraphs I will refer to them in the place where they would be

12 logically incorporated into the rule.

13

14 **Q. DESCRIBE YOUR OVERALL APPROACH FOR CALCULATING THE**

15 **USED AND USEFUL PERCENTAGES FOR WATER TREATMENT SYSTEMS.**

16 A. My methodology for calculating Used and Useful (U&U) for water treatment systems

17 involves addressing the major components of 1) water treatment, 2) storage, and 3) high

18 service pumping. Addressing the major components allows for a specific accounting of

19 the U&U across the facilities, such that if there is a significant difference between the

20 components, U&U it can be accounted for and adjusted accordingly.

21

22 The U&U for each component involves two primary pieces of information, a component

23 capacity and a component demand. Component capacity refers to the amount of water

1 that the component can reliably deliver. Generally, I address component capacity for
2 mechanical items as the total capacity less the highest capacity unit which is referred to
3 as the firm reliable capacity. For example with three high service pumps with capacities
4 of 200 gpm, 200 gpm and 300 gpm, I would consider the firm reliable capacity to be 400
5 gpm (the total capacity of 700 gpm less the 300 gpm largest capacity pump). Using firm
6 reliable capacity allows for the component to continue to provide service to the customer
7 in the event one of the units goes out of service. The concept of firm reliable capacity is a
8 generally accepted design consideration and is a part of the Florida Department of
9 Environmental Protection's (FDEP's) regulations provided by Rule 62-555, FAC, titled
10 Design and Construction of Public Water Systems.

11

12 The component demand refers to the type of service the component provides and can
13 actually change for a specific component based upon the water system configuration. The
14 water treatment component is an example of a component that can change depending
15 upon configuration. In a system where there is no storage the water treatment facilities
16 must meet the daily peak hour demands the customers place on the system. In addition, if
17 fire flow is required and is actually provided the water treatment system must also meet
18 this peak. In the event storage is provided, which provides equalization volume for the
19 daily peaks and fire flow, the water treatment component does not have to meet the peak
20 hour and therefore provides service based on the maximum day demand.

21

22 As I go through my testimony specific discussions about the component capacities and
23 demands are provided.

24

1 **Q. DO YOU HAVE ANY GENERAL COMMENTS CONCERNING THE RULE?**

2 A. Yes. I feel that the proposed rule should address the general methodology and
3 guidelines by which U&U calculations are conducted for water systems. However, there
4 certainly may be cases where alternative methodologies or modifications to the
5 guidelines may be required. There is no way of accurately determining every water
6 system's U&U percentages based upon a single inflexible set of guidelines. Therefore, it
7 is important that the rule include a provision that allows for alternative calculations when
8 they are justified and documented.

9

10 There are several instances where the proposed rule provides opportunities for a utility to
11 make a case for a higher U&U percentage than the rule would otherwise provide.

12 However, the rule as proposed does not offer OPC or customer groups the same
13 opportunity to provide alternative U&U calculations when the specific case presents
14 circumstances that might warrant a lower U&U percentage. In my testimony I
15 recommend a more neutrally worded provision that allows the Utility and the Customers
16 the opportunity to propose alternative U&U calculations, when the specific facts of the
17 case require it. The party proposing the alternative calculation shall have the burden to
18 prove that the alternative calculation is more appropriate for the specific case than
19 application of the calculation provided by the rule.

20

1 **Q. WHAT IS YOUR FIRST COMMENT ON THE PROPOSED RULE?**

2 A. My first comment on the proposed rule concerns Sections (1)(a) and (1)(b). There
3 should be a reference in the definition of a water treatment system to exclude high service
4 pumps from the definition. I recommend the following wording for (1)(a):

5 “(a) A water treatment system includes all facilities, such as wells and treatment
6 facilities, excluding storage and high service pumping, necessary to produce,
7 treat, and deliver potable water to a transmission and distribution system.”

8

9 Furthermore, high service pumps should be considered separate from storage facilities, so
10 I recommend the following wording for (1)(b):

11 “(b) Storage facilities include ground or elevated storage tanks”

12

13 Finally to complete the definition of high service pumps I recommend the following new
14 definition (1)(c):

15 “(c) High service pumping includes those pumps after storage that deliver potable
16 water to a transmission and distribution system.”

17

18 **Q. WHY DO YOU BELIEVE HIGH SERVICE PUMPS SHOULD BE**
19 **CONSIDERED SEPARATELY IN USED AND USEFUL CALCULATIONS?**

20 A. High service pumps after storage are separate and distinct components from both
21 water treatment and storage. These pumps that deliver potable water to the transmission
22 and distribution system and ultimately the customers, are required to meet the daily peak
23 demands of the service area, and if provided fire flow. Combining high service pumps

1 with storage in used and useful calculations ignores the fundamental role that high
2 service pumps play in a water treatment system. Unlike storage which is a fixed structure
3 and is evaluated in terms of volume, high service pumps are machines and should be
4 evaluated in terms of volume per unit of time such as gallons per minute.

5

6 **Q. WHAT IS THE IMPACT OF INCLUDING HIGH SERVICE PUMPS WITH**
7 **STORAGE AS IT IS CURRENTLY WRITTEN IN THE PROPOSED RULE?**

8 A. The high service pumps would not be evaluated at all. They would simply be assigned
9 the U&U percentage of the storage, the calculation of which has nothing to do with high
10 service pumping. There will be instances when some capacity of the high service pumps
11 will be considered U&U when in fact they are not. Conversely, there will be instances
12 when some of the capacity of the high service pumps is considered non U&U, when in
13 fact they are needed to provide service to the customers. Either way, evaluating high
14 service pumps separate from storage is necessary to provide an accurate calculation of
15 U&U.

16

17 **Q. DOESN'T EVALUATING HIGH SERVICE PUMPS SEPARATELY OVER**
18 **COMPLICATE THE RULE WHICH IS DESIGNED IN PART TO STREAMLINE**
19 **THE USED AND USEFUL CALCULATION PROCESS?**

20 It does provide an additional set of calculations, but it is necessary to assure the accuracy
21 of the U&U of the high service pumps. The recommended method of evaluating the
22 U&U of high service pumps mostly relies on data that is already required in Staff's
23 proposed rule. The only additional data that would be required is the capacity of the high

1 service pumps, which should be readily available. Adding this calculation to the rule is
2 not unduly burdensome or complicated and is needed in order to produce an accurate
3 U&U percentage.

4

5 **Q. WHAT IS YOUR NEXT COMMENT ON THE PROPOSED RULE?**

6 A. My next comment regards paragraph (1)(c) of the proposed rule which defines the
7 peak demand for a water treatment system as either the maximum hour or maximum day
8 demand. I find that the wording in this paragraph is non-specific and therefore I
9 recommend the following language that clarifies when maximum hour or maximum day
10 demand should be used and how they should be used with systems with and without
11 storage:

12 “Peak demand for a water treatment system includes:

13 1. For utilities without storage, the greater of:

14 (i) the utility’s maximum hour demand, excluding excessive unaccounted
15 for water, plus a growth allowance based on the requirements in Rule 25-
16 30.431, Florida Administrative Code, or

17 (ii) the utility’s maximum day demand, excluding excessive unaccounted
18 for water plus a growth allowance based on the requirements in Rule 25-
19 30.431, Florida Administrative Code, and if provided, a minimum of
20 either the fire flow required by local government authority or 2 hours at
21 500 gallons per minute.

22 2. For utilities with storage, the utility’s maximum day demand, excluding
23 excessive unaccounted for water, plus a growth allowance based on the

1 requirements in Rule 25-30.431, Florida Administrative Code.”

2

3 This wording provides for the specific cases of when maximum hour and maximum day
4 demands should be used. The first point to consider is whether the water treatment
5 system has storage. If it does not, the water treatment system must be sized to meet the
6 daily peak demands of the service area, and if provided, a minimum of either the fire flow
7 required by local government authority or 2 hours at 500 gallons per minute. Another
8 way to look at this is the well pumps are the high service pumps for the system and the
9 remainder of the treatment facilities must be sized accordingly. In evaluating pumps that
10 provide high service, the demand of the service area is evaluated in two ways. The first
11 way is to look at the maximum hour demand of the service area. The second way is used
12 when fire flow is provided for the service area. In these situations the fire flow plus the
13 maximum day demand of the service area provides a second calculation. The peak flow
14 of the water treatment system would be the greater of the two. This is similar to the
15 design standards for high service pumps stated in the FDEP rules for the design and
16 construction of Public Water Systems. Subsection (15)(a) of FDEP rule 62-555.320,
17 FAC, states in part:

18 “...the total capacity of all high service pumping stations connected to a water
19 system....shall be sufficient to: 1. Meet at least the water system’s...peak hour water
20 demand (and if fire protection is being provided meet at least the water system’s or the
21 booster station services area’s, design fire flow rate plus a background water demand
22 equivalent to the maximum-day demand other than fire flow demand);”

23

1 **Q. WHY DO YOU RECOMMEND TWO TESTS FOR PEAK FLOWS FOR**
2 **WATER TREATMENT SYSTEMS WITH NO STORAGE?**

3 A. For smaller systems where fire flow is provided the fire flow alone can be
4 significantly greater than the maximum hour flow. So the maximum day plus fire flow
5 test can give a better indication of the peak flows a water treatment system can
6 experience for smaller systems where fire flow is provided.

7

8 **Q. DESCRIBE THE PEAK DEMAND FOR WATER TREATMENT SYSTEMS**
9 **WITH STORAGE.**

10 A. Storage acts as an equalization volume for the peak demands that occur over the
11 course of a day. It also provides volume for fire flow demands if provided by the system.
12 Therefore, these peak demands are not placed upon the treatment facilities. In this
13 situation the peak flow from a water treatment system would be the maximum day
14 demand. The FDEP rule 62-555.315, FAC, provides that the total well capacity
15 connected to a water system shall at least equal the system's design maximum day water
16 demand.

17

18 **Q. ARE THERE ANY OTHER COMMENTS YOU HAVE WITH RESPECT TO**
19 **PARAGRAPH (1)(C) OF THE PROPOSED RULE?**

20 A. Yes, I make a distinction regarding fire flow by adding "if provided" to the language.
21 Even though there are local entities that may require fire flow, it is crucial before
22 accepting fire flows into the U&U calculation that a determination be made that fire
23 flows can actually be provided by the water system to the customers. This can be

1 evidenced by reviewing the water system maps that are required to be submitted as part
2 of a rate case to determine if there are the appropriate number of fire hydrants and the
3 system lines are sized to provide the required fire flow. This must be done on a case by
4 case basis and it requires the reviewing engineer to make such a determination.

5 **Q. WHAT IS YOUR NEXT COMMENT ON THE PROPOSED RULE?**

6 A. My next comment on the proposed rule is paragraph (1)(d) that defines the peak
7 demand for storage. The paragraph states that the peak demand for storage should be
8 equivalent to the maximum day demand of the utility. I find this to be excessive and
9 recommend the following language:

10 “Peak demand for storage includes 25% of the utility’s maximum day demand,
11 excluding excessive unaccounted for water, plus an allowance for fire flow, if
12 provided, a minimum of either the fire flow required by local governmental
13 authority or 2 hours at 500 gallons per minute, and a growth allowance based on
14 the requirements in Rule 25-30.431, FAC.”

15

16 This wording changes the definition of peak demand from the 100% maximum day to
17 25% of the maximum day. Subsection (19) of FDEP rule 62-555.320, FAC, states that
18 the total useful finished water storage capacity (excluding any storage capacity for fire
19 protection) connected to a water system shall at least equal 25 percent of the system’s
20 maximum day water demand, excluding any design fire flow demand. The revised
21 paragraph above mirrors the concepts embodied in the FDEP design standards by which
22 water systems are designed and constructed.

23

1 **Q. HOW DOES YOUR RECOMMENDED LANGUAGE CHANGE THE U&U**
2 **CALCULATION FOR STORAGE FACILITIES?**

3 A. As an example, if a system that does not provide fire flow has a design maximum day
4 of 500,000 gpd and the storage facilities are sized per the FDEP requirement of 25% of
5 that demand, the system would have 125,000 gallons of storage. If after several years the
6 system maximum day demand, as adjusted for unaccounted for water and growth, is
7 250,000 gpd, under the proposed rule the facilities would be over 100% U&U (250,000
8 divided by 125,000 gal) even though only half of the design demand is being applied in
9 the calculation. With my recommended wording using 25% of the adjusted maximum
10 day demand, the U&U would be calculated at 50% (0.25 times 250,000 gpd divided by
11 125,000 gal) which more accurately reflects the tank's usage.

12

13 **Q. WHAT IS YOUR NEXT COMMENT ON THE PROPOSED RULE?**

14 A. My next comment on the proposed rule is to add a definition for the peak demand for
15 high service pumps to correspond with the requirement that high service pumps be
16 evaluated separately. The wording is in fact very similar to what is proposed for water
17 treatment facilities without storage and reads as follows:

18 "Peak demand for high service pumping includes the greater of:

- 19 1. The utility's maximum hour demand, excluding excessive unaccounted for
20 water, plus a growth allowance based on the requirements in Rule 25-30.431,
21 FAC, or
- 22 2. The utility's maximum day demand, excluding excessive unaccounted for
23 water plus a growth allowance based on the requirements in Rule 25-30.431,

1 FAC, and if provided, a minimum of either the fire flow required by local
2 government authority or 2 hours at 500 gpm.”

3

4 This language is also similar to the requirements of FDEP for high service pumps as
5 detailed in subsection (15) of FDEP rule Chapter 62-555.320, FAC.

6

7 **Q. WHAT IS YOUR NEXT COMMENT ON THE PROPOSED RULE?**

8 A. My next comment is on paragraph (1)(g) regarding unaccounted for water. I
9 recommend the following sentence be added to the end of the paragraph:

10 “Any water claimed as accounted for that was used for flushing, fire fighting and
11 water lost through line breaks must be documented by complete records of these
12 flow losses.”

13

14 This additional sentence requires the utility to provide records documenting the other
15 water used in a system. If there are no records available describing the volume of water
16 used for flushing, fire fighting or line breaks the water can hardly be considered
17 accounted for and would therefore be considered as unaccounted for. This language
18 requires that documentation be provided to justify these other uses.

19

20 **Q. WHAT IS YOUR NEXT COMMENT ON THE PROPOSED RULE?**

21 A. My next comment concerns paragraph (2) of the proposed rule which states the
22 Commission’s U&U calculations shall include a determination of prudence of investment
23 and consideration of economies of scale. This paragraph has two parts, the first of which

1 is consideration of prudence of investment, which is already an issue in rate cases
2 separate of U&U and therefore, not required in the proposed rule. The second issue
3 concerns consideration of economies of scale. I recognize that economies of scale may be
4 present in a facility that may affect used and useful, however this paragraph provides no
5 clear direction or insight on how such issues should be addressed or calculated in U&U
6 calculations it merely raises the point. Therefore, my recommendation is that this
7 paragraph is not necessary and can be removed. I would point out, however, that my
8 recommended paragraph (3) to the proposed rule will provide for alternate methodologies
9 or revisions to U&U calculations that would allow for the flexibility for economies of
10 scale to be considered.

11

12 **Q. DO YOU HAVE ANY CONCERNS WITH PARAGRAPH (3) OF THE**
13 **PROPOSED RULE?**

14 A. Yes I do. This paragraph gives the utility the ability to provide alternative calculations,
15 along with supporting documentation if the utility believes it is appropriate. As
16 previously mentioned I agree with the issue that there may be instances where the
17 standard U&U calculations may not be appropriate or may not provide an accurate U&U
18 percentage. In fact, it would be difficult to craft a rule with strict calculations that would
19 accurately calculate used and useful for all cases. Some level of flexibility is desirable in
20 order to produce more accurate U&U percentages for some cases. However, with the way
21 this paragraph is worded only the utility has that ability to propose such calculations. The
22 recommended rewrite of this paragraph is:

23 "If any party believes a used and useful calculation should be utilized in a specific

1 case which differs from the provisions of this rule, such calculation may be
2 provided along with supporting documentation. The party proposing the
3 alternative calculation shall have the burden to prove that the alternative
4 calculation is more appropriate for the specific case than application of the
5 calculation provided by this rule. Examples of such specific cases that might
6 warrant the use of alternative U&U calculations include but are not limited to:
7 economies of scale, service area restrictions, factors involving treatment capacity,
8 well drawdown limitations, and changes in flow due to conservation or a
9 reduction in number of customers.”

10

11 Under this paragraph any party has the ability to propose alternative calculations if it is
12 deemed necessary given the specifics of the water system in question.

13 My additional comment to this paragraph is that it should give flexibility to the proposed
14 rule such that many of the specific potential exceptions to normal U&U calculation
15 provided by the proposed rule do not have to be stated elsewhere in the proposed rule.

16 **Q. WHAT IS YOUR NEXT COMMENT TO THE PROPOSED RULE?**

17 A. My next comment is with proposed paragraph (4) which addresses special cases where
18 a water treatment system should be considered 100% used and useful. In my opinion, if a
19 water treatment system has a set of special circumstances that would allow one to
20 consider it to be 100% used and useful other than through the calculations presented in
21 the proposed rule, it would be addressed by the recommended language presented in
22 revised paragraph (3).

23

1 **Q. WOULD THEN ALL OF THE SUBPARAGRAPHS OF PARAGRAPH (4)**
2 **THEN BE REMOVED TO YOUR RECOMMENDED PARAGRAPH (3)?**

3 No not all. Proposed subparagraph (a) states that the system should be 100% if it is the
4 “minimum size necessary” to provide service to existing customer plus growth and fire
5 flow. This subparagraph is redundant in the fact that the used and useful calculation itself
6 would determine the extent the system provides service to the customers, and if it is the
7 minimum size then the calculation would show U&U of 100%. This provision provides
8 absolutely no standards or definition to the term “minimum size necessary” and likely
9 would result in significant amounts of subjective opinion testimony from engineering
10 experts as to what the term “minimum size necessary” means. Ultimately this
11 subparagraph would complicate the very U&U calculations this rule seeks to simplify. I
12 recommend this subparagraph be removed in its entirety.

13

14 Proposed subparagraph (b) addresses issues when the water system is built out or
15 “mature” with no expansion to the service area. Maturity should not factor into the U&U
16 of a water treatment system. The age of a system has nothing to do with a system’s
17 capacity, demands, growth rate, unaccounted for water, fire flow or any of the other
18 parameters that comprise the U&U calculation. New systems can buildout quickly and be
19 100% U&U or systems can take a while to reach 100% U&U. In either case, the U&U
20 percentage can be accurately calculated as provided by the proposed rule, with my
21 recommended changes.

22

1 In the case where the system is built out and there is no potential for a service area
2 expansion there may be a case for departing from the established U&U calculations.
3 However, this can easily be addressed in my recommended paragraph (3).

4

5 Proposed subparagraph (c) allows for 100% U&U if a system is served by one well.

6 While the concept of firm reliable capacity (total capacity of all units less the capacity of
7 the largest) implies that there will always be more than one well, in fact, there are
8 instances where water systems are designed and permitted with a single well, as provided
9 in FDEP rule 62-555.315, FAC. When there is only one well the U&U calculation should
10 be based on the capacity of that single well. Under the proposed rule a single well can be
11 operating within a system that is 50% built out and operating at 50% capacity and yet be
12 considered, inaccurately, as 100% used and useful.

13

14 Removing the largest well from service is an acceptable way to calculate the U&U for
15 multiple well systems, however, for single well systems there is not a redundant, standby
16 well that can be removed. In these cases the U&U should be evaluated on the single well
17 in service.

18

19 **Q. DO YOU HAVE ANY COMMENTS ON PARAGRAPH (5) OF THE**
20 **PROPOSED RULE?**

21 A. I agree with the language of paragraph (5) as proposed.

22

1 **Q. WHAT IS YOUR NEXT COMMENT ON THE PROPOSED RULE?**

2 A. My next comment concerns paragraph (6) of the proposed rule regarding the firm
3 reliable capacity of a water treatment system. This paragraph is overly complex with
4 respect to the definition of firm reliable capacity by bringing in several unique, specific
5 cases that can be addressed in the alternative methodology paragraph previously
6 mentioned. My recommended language for this paragraph is:

7 “The firm reliable capacity of a water treatment system is equivalent to the
8 pumping capacity of the wells, excluding the largest well for those systems with
9 more than one well. “

10

11 This wording simplifies the definition of firm reliable capacity as the capacity with the
12 largest well out of service for multiple well systems. Single well systems are evaluated
13 based the capacity of the single well as mentioned previously.

14

15 **Q. WHAT SPECIFICALLY WITH THIS PARAGRAPH DID YOU FIND TO**
16 **ADDRESS UNQUE CASES?**

17 A. There are a few. The first deals with setting the capacity of the water treatment system
18 based on a limiting factor such as treatment capacity or drawdown limitation. Secondly,
19 there is a sentence that allows the utility to take more than one well out of service if the
20 utility believes there is justification. Both of these provisions over complicate the
21 capacity issue. I recognize that there may be cases where this can be a concern, however,
22 they are not so common place as to require specific treatment in the proposed rule.

23

1 With respect to limiting treatment capacity there may be a case where a relatively small
2 part of a water treatment plant unreasonably limits the entire water treatment component
3 to a much less capacity than would otherwise be the case, which would automatically
4 cause the U&U to be higher than if the components were all properly sized. Ultimately
5 the customers would bear the impact of U&U for water treatment capacity that is under
6 utilized. Similarly, simply removing additional wells from the U&U calculation if the
7 utility believes there is justification also causes the U&U percentage to be higher.

8

9 In the event that there is a documented, valid, case for addressing a limiting capacity
10 issue, or removing more than one well from service it can be addressed by my neutrally
11 worded recommended paragraph (3).

12

13 **Q. DO YOU HAVE ANY CONCERNS WITH SUBPARAGRAPH (6)(a)?**

14 A. Subparagraph (6)(a) speaks to the units of expressing the firm reliable capacity of
15 systems with no storage capacity in terms of gpm. I believe that as long as the units of the
16 U&U calculation are consistent gpm, gph or gpd can be used. That being said I do not
17 object to the wording of the subparagraph (6)(a).

18

19 **Q. DO YOU HAVE ANY CONCERNS WITH SUBPARAGRAPH (6)(b)?**

20 A. I have an issue with subparagraph (6)(b) regarding the firm reliable capacity of wells
21 for water treatment systems with storage capacity. I recommend the following wording:

22 “(b) For systems with storage, the firm reliable capacity shall be expressed as
23 gallons per day, based upon 24 hours of pumping, unless there is documented

1 restrictions to the hours of pumping as required by the Water Management
2 District or other regulatory body, in which case the restriction shall apply.”

3

4 The way the proposed rule is written there are different firm capacity criteria depending
5 on whether the water treatment facilities have storage or not. Paragraph (6)(b) states that
6 well capacity for systems with storage should only be evaluated for the wells pumping for
7 12 hours instead of 24 hours. The number of hours a well can be pumped is completely
8 independent of the downstream components of a water treatment system including,
9 storage. The FDEP rules for public water supply wells make no specific reference to a
10 requirement that would require that well pumps be limited to 12 hours of pumping per
11 day if the system includes storage. In fact, prudent and efficient design of a well system
12 would seek to maximize the pumping time to the daily maximum of 24 hours.

13

14 The maximum capacity a well can produce in one day is equivalent to the amount of
15 water it can produce in 24 hours regardless of the type of treatment, presence of storage
16 or characteristics of the service area. Basing the reliable capacity on 12 hours of pumping
17 AFTER removing the largest well for service pursuant to paragraph (6) above essentially
18 doubles the U&U of a water treatment system for no reason other than it has storage.

19

20 **Q. WOULDN'T YOU AGREE THAT THERE ARE INSTANCES WHERE DUE**
21 **TO AQUIFER LIMITATIONS OR PERMIT CONDITIONS THAT WELLS**
22 **SHOULD BE EVALUATED ON LESS THAN 24 HOUR PUMPING?**

23 A. Yes absolutely. I recognize that in Florida the production capacity of wells can change

1 not only with geography but also can change over time as aquifers are stressed or salt
2 water intrusion becomes a concern. When this is an issue the solution is generally an
3 amount of reduced pumping or relocation of wells. In no way is the solution something as
4 simple as reducing well pumping to 12 hours a day. In order to address these issues when
5 they arise a more accurate U&U percentage can be derived by evaluating the specific
6 system in detail. I also believe my recommended language concerning consideration of
7 limiting factors required by the Water Management District or other regulatory body
8 helps address this issue.

9

10 **Q. WHAT IS YOUR NEXT ISSUE WITH THE PROPOSED RULE?**

11 A. My next issue is with proposed subparagraph (7)(a)1. and 2. concerning the factor to
12 be used to determine peak hour demand of a water system. I propose the following
13 language:

14 “1. The single maximum day (SMD) in the test year where there is no unusual
15 occurrence on that day, such as a fire or line break, less excessive unaccounted for
16 water, divided by 1440 minutes in a day, times a peaking factor ranging between
17 1.5 to 2 $[(SMD-EUW)/1,440] \times 1.5$ to 2], or

18 2. The average of the 5 highest days (AFD) within the maximum month of the
19 test year, less excessive unaccounted for water, divided by 1440 minutes in a day,
20 times a peaking factor ranging between 1.5 to 2 $[(AFD-EUW)/1,440] \times 1.5$ to 2].

21 3. In determining an appropriate peaking factor in the range for a specific system,
22 consideration shall be given to the size and character of the system service area.

23 For larger systems with a diverse customer base a lower peaking factor shall be

1 used, and conversely, for smaller systems with a uniform customer base a higher
2 peaking factor shall be used.”

3
4 This language provides for a peaking factor that can range from 1.5 to 2.0 rather than the
5 2.0 that is reflected in the proposed rule, and provides guidelines for the use of a higher
6 or lower peaking factor. Generally, as water systems get bigger and have a more diverse
7 customer base the peak hour demand factor decreases. Rarely is the peaking factor the
8 same from system to system. Industry guidelines indicate that there is a range of typical
9 peaking factors and FDEP in its August 2006 comments to the proposed rule states that
10 the peak hour demand is about 1.4 times the maximum day demand. This recommended
11 change to the rule provides for peaking factors less than 2.0 should the nature of the
12 service area warrant it.

13

14 **Q. WHAT IS YOUR OTHER CHANGE TO PROPOSED PARAGRAPH (7)?**

15 A. I have a recommended change to the wording of subparagraph (7)(a)2. concerning the
16 use of the average of five highest days as an approximation of maximum day flow. I
17 recommend changing the wording from “in a 30 day period” to “within the maximum
18 month” of the test year. This provides for a somewhat easier calculation, in that water
19 utility flow data is provided on a calendar month basis. It is also consistent with the
20 method that has been used by the FPSC in the past.

21

22 **Q. DO YOU HAVE ANY OTHER COMMENTS REGARDING PARAGRAPH (7)?**

23 A. My final comment concerns subparagraph (7)(a)3. which refers to using 1.1 gpm/ERC

1 in the event that actual maximum flow data is not available. I believe this should be
2 eliminated as it attempts to generalize an uncommon occurrence that could be addressed
3 under my recommended alternative methodology paragraph (3). Although it may
4 occasionally occur that a utility may not have the data that is typically required for a
5 water system to be in compliance with industry standard practice and regulatory
6 requirements, there are a myriad of ways a peak demand could be generated. Arbitrarily
7 applying a demand factor ignores the fact that some data may be available that could be
8 utilized to produce a reasonable demand number and that number may be higher or lower
9 than the proposed 1.1 gpm/ERC. It is quite likely that a water system will have a peak
10 demand that can be lower than 1.1 gpm /ERC, particularly in service areas where there is
11 not wide spread irrigation or a low ratio of persons to ERC. It is impossible to
12 specifically pin down how maximum day demands may be determined from a utility that
13 does not have good records, but the records that are available or other data could be used
14 on a system specific basis that would be more accurate than 1.1 gpm/ERC.

15

16 Furthermore, this subparagraph would seem to reward utilities for not keeping good flow
17 records for rate proceedings, if their actual flows are less than 1.1 gpm/ERC.

18

19 **Q. DO YOU HAVE ANY COMMENTS REGARDING PARAPGRAPH (7)(b)?**

20 A. Yes. I have a comment on (7)(b)2. similar to my comment on (7)(a)2. concerning the
21 use of the average of five highest days as an approximation of maximum day flow. I
22 recommend changing the wording from “in a 30 day period” to “within the maximum
23 month” of the test year for the reasons stated above.

24

1 Also similar to my comment on (7)(a)3. I believe (7)(b)3. should be removed. This
2 subparagraph attempts to assign a blanket value of 787.5 gpd per ERC as the maximum
3 day demand to be used for systems that do not have actual maximum day flow data. As I
4 mentioned in my testimony on (7)(a)3. I believe such a generalized factor ignores the
5 possibility that some system specific data may be available that could result in a more
6 accurate U&U percentage.

7

8 **Q. DO YOU HAVE ANY COMMENTS REGARDING PARAGRAPHS (8) AND (9)**
9 **OF THE PROPOSED RULE?**

10 A. I agree with the language of proposed paragraphs (8) and (9).

11

12 **Q. WHAT IS YOUR NEXT COMMENT ON THE PROPOSED RULE?**

13 A. My next comment has to do with adding language to include the U&U calculation of
14 high service pumps. I recommend the following be added:

15 “(x) The used and usefulness of high service pumping is determined by dividing
16 the peak demand for high service pumping as defined in this rule by the firm
17 reliable capacity of the high service pumps.

18 (x2) The firm reliable capacity of high service pumping is equivalent to the
19 pumping capacity of the high service pumps, excluding the largest high service
20 pump for those systems with more than one high service pump.”

21

22 These paragraphs simply identify the method of calculating the U&U for high service
23 pumps and incorporates the firm reliable capacity concept for high service pumps.

24

1 **Q. DO YOU HAVE ANY COMMENTS ON PARAGRAPHS (10) AND (11) OF**
2 **THE PROPOSED RULE?**

3 A. Yes. Both paragraphs state issues for the Commission to consider and do not
4 specifically provide any guidelines or recommendations for calculation of U&U.
5 Paragraph (10) concerns consideration of an adjustment to plant operating and
6 maintenance expenses as a result of unaccounted for water. Since this refers to an
7 adjustment to operations and maintenance expenses and not U&U I recommend it be
8 removed from the proposed rule.

9

10 Paragraph (11) also states the Commission will consider other relevant factors in the
11 U&U calculations such as decrease in flow. Once again this may sometimes arise as an
12 issue, however, it can be addressed in the alternative methodology calculation in my
13 recommended paragraph (3).

14

15 **Q. HAVE YOU PREPARED A COPY OF PROPOSED RULE 25-30.4325**
16 **INCORPORATING YOUR RECOMMENDED WORDING?**

17 A. Yes I have and it is attached as Exhibit ATW-2

18

19 **Q. DOES THAT CONCLUDE YOUR TESTIMONY AT THIS TIME?**

20 A. Yes it does.

1 CHAIRMAN CARTER: Mr. Reilly, you are recognized.

2 MR. REILLY: Okay. I guess I would ask Mr. Woodcock
3 to provide a brief five-minute summary.

4 THE WITNESS: Thank you.

5 CHAIRMAN CARTER: Mr. Woodcock.

6 THE WITNESS: I am of the opinion that the proposed
7 rule set forth should set forth the general methodology and
8 guidelines for calculating used and useful for water systems;
9 however, there may be special cases where deviations from the
10 guidelines may be required. Therefore, it is important that
11 the rule contain a provision to allow any party the ability to
12 present alternative methodologies to calculating used and
13 useful should the specific facts of a case require. I
14 recommend several changes to the proposed rule; however, in my
15 summary I will touch on the major issues.

16 The proposed rule would have the firm capacity for
17 water treatment systems with storage be based upon wells
18 operating for 12 hours instead of 24. This provision
19 essentially doubles the used and useful of a water treatment
20 system. The maximum capacity a well can produce in a day is
21 equivalent to the water it will produce in 24 hours, and
22 prudent and efficient design would seek to maximize that
23 pumping time. There may be circumstances where the capacities
24 of wells may be limited due to aquifer characteristics or salt
25 water intrusion; however, the solutions to these issues are

1 never as simple as reducing pumping times to 12 hours. I
2 believe a more accurate used and useful percentage can be
3 obtained by allowing for a provision for pumping less than 24
4 hours should it be required or mandated by the water management
5 district or other regulatory agency.

6 I am of the opinion that the provision for
7 alternative calculations in proposed Paragraph 3 of the rule
8 should be expanded to allow all parties, the utility, staff and
9 intervenors, the ability to deviate from the prescribed
10 methodology of the rule where circumstances warrant it. In
11 these cases I believe each party should have the burden of
12 proof in documenting their position. I also believe that there
13 are many cases throughout the proposed rule that can be
14 incorporated in this paragraph, including economies of scale,
15 service area restrictions, limiting factors involving treatment
16 capacity, well drawdown limitations and changes in flow due to
17 conservation or a reduction in number of customers.

18 There are certain provisions in Paragraph 4 of the
19 proposed rule that would automatically allow a water treatment
20 system to be 100 percent used and useful. The provision for
21 allowing a single well system to be automatically considered
22 100 percent used and useful does not account for the fact that
23 that well may only be actually partially utilized by the
24 customers.

25 Another provision of Paragraph 4 would allow for .

1 100 percent used and useful for systems that are built out with
2 no room for expansion. I am of the opinion that this
3 represents a special case that could handled under the
4 alternative methodology paragraph.

5 Additionally, I find the proposed peak demand for
6 storage to be equivalent to the maximum day demand to be
7 excessive and recommend that the FDEP requirement of 25 percent
8 of the maximum day demand be used to more accurately reflect
9 design requirements. Under the proposed rule, a storage tank
10 that is appropriately designed for 25 percent of maximum day
11 per the DEP criteria would automatically be considered
12 100 percent used and useful if it were actually only serving
13 customers to an extent of 50 percent of its capacity.

14 As currently proposed, the high service or the -- as
15 currently proposed, the rule does not account for the separate
16 calculation of high service pumps. I am of the opinion that
17 high service pumps are a separate and distinct component from
18 both storage and treatment and play a fundamental role in
19 providing service to customers. My separate evaluation of high
20 service pumps is not burdensome, nor does it overly complicate
21 the rule. My recommendation is to provide a separate used and
22 useful calculation for high service pumps in order to provide
23 for more accuracy. And that's my summary.

24 MR. REILLY: Okay. We would tender Mr. Woodcock for
25 cross-examination.

1 CHAIRMAN CARTER: Okay. Mr. Hoffman, you're
2 recognized.

3 MR. HOFFMAN: Thank you, Mr. Chairman.

4 CROSS EXAMINATION

5 BY MR. HOFFMAN:

6 Q Good morning, Mr. Woodcock.

7 A Good morning.

8 Q My name is Ken Hoffman. I represent Aqua Utilities
9 Florida.

10 Have you ever previously testified before this
11 Commission on the issue of used and useful plant in service?

12 A Not before the Florida Public Service Commission.

13 Q Let me ask you to turn to, let me ask you to turn to
14 your Exhibit ATW-1, which is your resume. And take a look at
15 Pages 2 and 3 of that document, if you would.

16 Would you agree that all of your work for the
17 11 listed clients, with the exception of the Office of Public
18 Counsel, has been on behalf of governmental utility entities?

19 A Yes.

20 Q Would you agree that governmental authorities such as
21 a county water utility or a municipal water utility do not
22 establish rates based on used and useful calculations?

23 A That is correct.

24 Q Do you agree that the, that this Commission must
25 allow a utility the opportunity to recover the full cost of

1 serving existing customers on a current basis as well as for a
2 reasonable future period after meeting the demands of customer
3 growth?

4 A Could you restate that again? I'm sorry.

5 Q Yes, sir. Do you agree that this Commission must
6 allow a utility the opportunity to recover the full cost of
7 serving existing customers on a current basis as well as for a
8 reasonable future period after meeting the demands of customer
9 growth?

10 A To the extent that that is part of the regulatory
11 process, yes.

12 Q Do you agree that water systems are designed on the
13 basis of meeting estimated maximum demands for design purposes
14 that are typically greater than customers will ultimately
15 impose?

16 A In some cases, yes, but not in all.

17 Q And would you agree that typically safety factors or
18 cushions are built into the design maximum demands?

19 A Yes.

20 Q Would you agree that the Commission's proposed rule
21 which is at issue in this hearing reflects the use of actual
22 maximum demands, not the higher demands used for design
23 purposes?

24 A It is based on the actual demands that the customers
25 utilize in a system.

1 Q So that would be a yes to my question?

2 A Yes.

3 Q Can we then agree that the proposed rules are
4 conservative from the standpoint that they incorporate actual
5 demand, actual maximum demands as opposed to the higher demands
6 that are used for design purposes?

7 A I'm sorry. Can you repeat that again?

8 Q Yes. You answered yes to my question that the
9 proposed rule reflects actual maximum demands, not the higher
10 demands for design purposes; correct?

11 A Correct.

12 Q And with that would you agree then that the proposed
13 rules are conservative?

14 A No, I do not.

15 Q Okay. You do agree that the, that the number that is
16 used in the proposed rule for demands is lower. In other
17 words, actual maximum demands are lower than the higher demands
18 used for design purposes.

19 A In some cases it may be, yes.

20 Q Do you agree with Mr. Guastella that one objective of
21 the proposed rule is to establish reasonable used and useful
22 criteria that eliminate unnecessary and costly controversy?

23 A To the extent that that can be embodied with the
24 flexibility provisions of the rule, yes.

25 Q Do you agree with Mr. Redemann's statement in his

1 testimony that used and useful litigation results in
2 substantial rate case expense which is ultimately passed on to
3 the ratepayers?

4 A I cannot really speak to the magnitude of used and
5 useful rate case expense versus other rate case expenses.

6 Q Okay. All right. Let me ask that again because I
7 didn't ask you about the magnitude. Do you agree with
8 Mr. Redemann's statement that used and useful litigation
9 results in substantial rate case expense -- actually I did ask
10 you about the magnitude. I'm sorry.

11 Do you understand that the costs of used and useful
12 litigation are passed on to a utility's customers?

13 A That is my understanding.

14 Q Okay. Do you think that the general purpose of an
15 agency's rulemaking process should be to codify an agency's
16 policies to avoid repeated litigation over the same issue?

17 A Can you repeat that one again?

18 Q Sure. Do you believe that the general purpose of an
19 agency's rulemaking process should be to codify an agency's
20 policies through, that have been developed through litigation
21 so as to avoid future repeated litigation over the same issue?

22 A I guess I would have to conditionally agree to that
23 to the extent that I'm not involved very frequently in
24 rulemaking as a procedure.

25 Q Okay. Wouldn't you hope that one of the goals of

1 this whole rulemaking process is to have the Commission issue a
2 rule that, for example, on a particular issue that's been
3 litigated 12 times, that the Commission would now have a rule
4 and thereby eliminate continued litigation on that particular
5 issue?

6 A Yes, I would.

7 Q Would you agree that the more expressly stated and
8 defined rules and methodologies that the Commission
9 incorporates into this rule, the less litigation that there
10 will be in the future over specific used and useful issues?

11 A I would agree. But there's an important point to
12 make here, especially with respect to used and useful in water
13 utilities. It's one thing to codify rules to make things
14 administratively expedient, but those rules also have to be
15 carefully considered in the fact that they're not glossing over
16 or causing potential inequities that could better be handled by
17 some flexibility in those rules.

18 Q Okay. Let me, let me ask you a few questions about
19 that particular issue, flexibility, which you just mentioned in
20 your last response.

21 Would you accept, subject to check, that in your
22 prefiled direct testimony you have made five separate
23 recommendations where you recommend that a provision of the
24 proposed rule be removed and covered under this alternative
25 methodology section?

1 A Subject to check of the number five, yes.

2 Q Isn't it your position that an alternative
3 calculation provision in the rule should capture only special
4 or unique cases?

5 A Yes.

6 Q Is it your position that a determination of prudence
7 of investment is something special or unique?

8 A No. It's something that's fundamental to the entire
9 rate process is my understanding.

10 Q Wouldn't you agree that consideration of economies of
11 scale is not special or unique?

12 A I think that it is special and unique to the extent
13 that economies of scale can be addressed in used and useful
14 many different ways, and it's difficult to specifically codify
15 how one would handle economies of scale.

16 Q But the truth is -- in your experience isn't the
17 issue and the consideration of economies of scale something
18 that is typically done in the design and engineering of water
19 treatment plant?

20 A It is occasionally considered, yes.

21 Q Would you agree that a situation where a water system
22 is built out with no further opportunity for expansion is not
23 unique in the State of Florida?

24 A You know, I can't really speak on my experience if
25 that's the case or not. I would not say that -- I don't know.

1 As a general rule I could not tell you that.

2 Q You don't know one way or the other?

3 A Right.

4 Q Would you agree that there is nothing special or
5 unique about the pumping capacity of a water treatment system
6 being limited by something, by something such as the treatment
7 capacity or drawdown limitations?

8 A It can be a special case. It certainly is a unique
9 case when you're trying to codify these rules on a set of
10 standards. Such things that can change, what type of the
11 treatment process is limiting, what are the well drawdown
12 calculations, all of those are different from system to system.
13 The concept may be in many systems or some systems, but the
14 specific addressing of those issues is different for every
15 system.

16 Q So the concept is not, is not unique, but the
17 numbers, the specific application to a system certainly changes
18 from system to system. Is that a fair statement?

19 A The method of calculation could certainly change from
20 system to system.

21 Q Is it unusual or unique to see a decrease in flows
22 due to conservation or a reduction in the number of customers?

23 A No. You take away demand, you're going to see less
24 demand.

25 Q Now --

1 A But to the extent that, once again, from system to
2 system the magnitude or the degree or the causes of reductions
3 in flows, once again, very different from system to system.

4 Q Let me, let me ask you a few questions about this
5 issue of high service pumps that you talk about on Pages 7
6 and 8 of your testimony. Isn't it true that many small water
7 systems do not have high service pumps?

8 A In many small water systems without ground storage
9 the well pumps actually act as high service pumps.

10 Q Was that a yes or a no?

11 A I would say all systems have high service pumps,
12 small or big.

13 Q Okay. But in small systems I think your answer is
14 other pumps that are not high service pumps serve a high
15 service pumping capacity. Isn't that what you're saying?

16 A High service pumping is a function, it's not just a
17 label you tag on a pump. The definition of high service
18 pumping is essentially the last pump that provides service to
19 the customers.

20 Now in the case of small systems or even maybe medium
21 size systems you will have a system where the only pump in the
22 water treatment system is the well pump. To the extent that
23 it's providing the high service directly to the customers, that
24 is considered a high service pump. It is also the well pump.

25 Q You studied and filed testimony in Aqua's last rate

1 case, did you not?

2 A Yes.

3 Q Okay. Isn't it true that, subject to check, that in
4 that rate filing which contained 56 water systems that Aqua
5 only had, that Aqua had high service pumps for only 14 out of
6 56 of those systems?

7 A Subject to check. I really don't --

8 Q You would agree with that?

9 A I really don't know the number. There were some that
10 did and some that didn't.

11 Q Okay. Would you accept, subject to check, that only
12 14 out of 56 water systems had high service pumping facilities?

13 A No. They all had high service pumping facilities of
14 some sort. Like I said before, they may have been the well
15 pumps providing that high service function. So I would say all
16 54 did.

17 Q Okay. Would you accept, subject to check, that only
18 14 out of 56 water systems in that case had high service pumps?

19 A Once again, high service pumps -- the well pumps
20 could be high service pumps, and I believe every, every system
21 in that case had wells.

22 Q Did you calculate a used and useful percentage for
23 high service pumps for all 56 of those water treatment systems?

24 A I did.

25 Q Would you agree that for water systems that have

1 multiple high service pumps that the capacity of those pumps
2 alone is not sufficient to show their used and useful
3 percentage?

4 A I disagree with that.

5 Q Would you agree that, that typically high service
6 pumps connect to a common transmission main?

7 A Yes.

8 Q Would you agree that when two or more high service
9 pumps are operated at the same time that they pump against
10 pressure resulting in flow rates that are less than their rated
11 capacity?

12 A Not necessarily. When you're doing proper design of
13 high service pumping facilities, you know how many high service
14 pumps you're going to put together. You're going to rate the
15 capacity of each of those pumps knowing that they're actually
16 going to be operating within an envelope of operation ranges.
17 Generally in design the rated capacity of the pump seeks to hit
18 the center of that envelope of operation, and, therefore, I
19 think it is the most appropriate number to use for used and
20 useful.

21 Q Okay. Would you agree though that there are times
22 that when two or more high service pumps are operated at the
23 same time they will have flow rates that are less than their
24 rated capacity?

25 A I would say generally because of increased head

1 conditions in the discharge piping that is correct.

2 Q Would you agree that operators may alternate the use
3 of multiple pumps depending on the demands of the system and
4 therefore not use all of the pumps at the same time?

5 A That is quite possible.

6 Q Do you agree with Mr. Redemann's statement in his
7 testimony that generally speaking the cost of high service
8 pumps is minimal compared to the cost of storage?

9 A No, I disagree with that. I believe it is certainly
10 less in almost all cases, but by no means do I think that it's
11 minimal.

12 Q Do you agree that factors such as the configuration
13 of piping and the specific operation of high service pumps
14 should be taken into account in determining the effective
15 capacity of high service pumps if the Commission goes with a
16 separate used and useful methodology?

17 A I believe that those considerations are done during
18 the design process, and that when an engineer designs a high
19 service pumping system, he does it knowing the operating
20 conditions of the system, the discharge piping and everything
21 that goes into it and designs the rated pumps at the
22 appropriate levels to be able to provide to serve that. For
23 the, for calculations of used and useful, I believe that it is
24 appropriate to rely upon the engineer's original design and
25 utilize the rated capacity of the pumps.

1 Q If the Commission were to go with a, a separate
2 formula in the rule for high service pumps, would you agree
3 that an appropriate formula would be to divide the greater of
4 the peak hour demand or maximum day demand plus fire demand and
5 gallons per minute by the reliable capacity of the high service
6 pumps?

7 A To the extent that that generally follows what I
8 propose, yes.

9 Q Do you agree that firm reliability, firm reliable
10 capacity of high service pumps should be determined by removing
11 the capacity of the pump with the highest capacity from the
12 total capacity of all pumps?

13 A Yes, I do.

14 Q Do you agree that the reliable capacity of the
15 remaining pumps in my example should be determined with
16 consideration given to the fact that the rated capacity of each
17 pump may be more than the combined capacity of all pumps?

18 A I'm sorry. I'm not following you on that question.

19 Q Okay. When you're talking about -- this is assuming
20 if the Commission were to incorporate something in the proposed
21 rule that's not there now, which is sort of the formula for
22 high service pumps, and you're trying to determine the reliable
23 capacity, my question was do you believe that the -- do you
24 agree that the reliable capacity of the remaining pumps, we've
25 taken the highest one out of service, the remaining pumps

1 should be determined with consideration given to the fact that
2 the rated capacity of each pump may be more than the combined
3 capacity of all pumps when they're operated at the same time?

4 A I do not.

5 Q Do you agree that there may be limiting factors
6 attributable to the actual operation of the remaining pumps in
7 my example?

8 A There could be limiting factors anywhere in a water
9 system.

10 Q So that's a yes?

11 A Once again, you know, an alternative methodology is a
12 way of handling those special cases.

13 Q Let me switch to a different subject, Mr. Woodcock.
14 This is covered on Page 23 of your testimony. It's essentially
15 the issue of maximum day demands and peak demands. Would you
16 agree that if the maximum day has an unusual occurrence, that
17 it would only be logical and consistent to use the next highest
18 maximum day, so long as it does not have an unusual occurrence?

19 A For purposes of calculating used and useful?

20 Q Yes.

21 A No.

22 Q Are you aware of any national standard or design
23 criteria that would support defaulting to a five-day average?

24 A No. From a design standpoint, no.

25 Q Once a maximum day is experienced for a water

1 treatment plant is there ever any real world justification for
2 using anything less than that maximum rate of flow even if the
3 test year maximum day is lower?

4 A For purposes of design or used and useful?

5 Q Used and useful.

6 A Well, for used and useful there's an important
7 concept that's outside of design, which is you need to remain
8 within the test year so that everything submitted within the
9 rate case lines up within the same time period.

10 So to the extent that there is this overriding
11 matching principle that applies to rate cases in general, I
12 would say that the flows need to remain within the test year.

13 Q So as I understand your testimony, you would ignore
14 the real world fact that, say, for example, the year before
15 flows were higher in order to have the matching of a test year?

16 A I would say that is correct. Provided to the
17 extent -- I guess let me qualify.

18 Q Sure.

19 A There is the alternative calculation provision. I
20 mean, if there's some overwhelming good reason, there might be
21 a case to be made there.

22 Q Okay.

23 A That's one of the reasons why that provision needs to
24 be there.

25 Q You would agree though that design criteria for a

1 water treatment plant is never dependent on a Public Service
2 Commission's rate setting test year?

3 A Correct.

4 Q Okay. Let me switch topics again, please. Let me
5 ask you to go to Page 9 of your direct where you talk about the
6 peak demand for a water treatment system with and without
7 storage.

8 With respect to the, the issue of storage, do you
9 agree that storage is provided for equalization, fire
10 protection and emergencies?

11 A I believe that it can be provided for that.

12 Q Is that a yes?

13 A In, in some cases, yes, those are all considerations
14 that you can make.

15 Q Do you agree that storage facilities may be located
16 at various spots or locations throughout a distribution system?

17 A Yes.

18 Q Would you agree that if a fire occurs, that all
19 facilities are generally used at their full capacity, including
20 storage?

21 A No.

22 Q Would you agree that that can be the case depending
23 on whether there's one fire or multiple fires on a particular
24 system?

25 A Or magnitude of fire, yes. I mean, the size of the

1 system plays a role into that, the characteristics of the
2 service area, a lot of very specific cases.

3 Q Yes, that can be the case.

4 A It can be. May not always be.

5 Q Okay. Let me ask you to turn to Page 17 of your
6 direct, please, beginning at Line 7.

7 A I have to apologize. My copy of my testimony does
8 not have Page 17. If I could -- a problem with the copier, I
9 guess.

10 Q We're working on that one.

11 A Thank you, Steve. Okay.

12 Q Okay. Let me, let me ask you to take a look at
13 Line 7 on Page 17. Familiarize yourself with that, if you
14 will, Mr. Woodcock.

15 You've got a sentence there that starts with the
16 words, "This provision." That's actually where I'm looking at,
17 and then just keep reading forward.

18 A Do you mean the sentence that begins with "This
19 subparagraph"?

20 Q It says, "This provision" -- I think you're referring
21 to Subsection (4)(a). You say, "This provision provides
22 absolutely no standards or definition to the term 'minimum size
23 necessary.'"

24 A Yes.

25 Q Okay. As I understand it then, if you keep reading

1 your testimony, the concern that you have is that there would
2 be significant amounts of subjective opinion testimony from
3 experts in rate cases as to what is meant by the term "minimum
4 size necessary." Is that a fair statement of what you're
5 saying?

6 A That is correct. The rule is seeking to kind of
7 streamline the process, and that kind of opens it up to a lot
8 of interpretation.

9 Q Okay. Now wouldn't you agree that for every issue or
10 provision in the proposed rule that the Commission may
11 ultimately decide to remove a section of the proposed rule and
12 throw into the alternative methodologies, that we have the same
13 implications, it's open season?

14 A Well, to the extent that the rule is supposed to
15 provide guidelines on how to calculate it and recognizing that
16 there are special cases. I mean, there has to be that
17 flexibility in there for special cases. I would say that
18 putting a term like that in the body of the rest of the rule
19 which is supposed to simplify and streamline things is not
20 appropriate. It could certainly be handled as an alternative
21 calculation or an alternative methodology to what's in the
22 rule.

23 Q Every issue that the Commission does not put into
24 express rule language and basically says we don't need a rule
25 on this, this can be addressed in the alternative calculation

1 provisions, the implications of that are that there could be
2 future rate case proceedings where we'll have competing
3 experts; correct?

4 A Yes.

5 Q Let me ask you one more question about this phrase
6 "minimum size necessary." Wouldn't you agree that with respect
7 to that phrase, "minimum size necessary," that there's really
8 nothing overly complicated for an engineer to determine if a
9 system is the minimum size necessary to serve existing
10 customers, plus growth, plus fire flow?

11 A No, I don't agree with that at all. I mean, I look
12 at minimum size necessary and I think to myself of what, within
13 what respect, you know, under what conditions? Minimum size
14 necessary really tells me nothing, other than -- I mean, if you
15 were to say the number ten is your minimum, then that's
16 something I think everybody could agree upon. But just minimum
17 size necessary provides very little clarity.

18 Q Let me ask you a question or two on your testimony on
19 Page 22 on Line 23. Your -- that's part of a discussion
20 regarding Subsection (7)(a) of the rule.

21 A Okay.

22 Q Okay. You've got some, some proposed language there
23 that talks about for larger systems with a diverse customer
24 base. Do you see that?

25 A Uh-huh.

1 Q Okay. Wouldn't you agree that the term "diverse
2 customer base" is vague?

3 A Yes. Can I speak to my rebuttal testimony that
4 changes this?

5 Q I think that the Chairman's ruling is that you can if
6 you're asked that question when you come up for your rebuttal.
7 I don't, I don't have anything further on that particular
8 topic.

9 Let me ask you to turn to Page 17 where you are
10 talking about Subsection (4)(b) of the proposed rule.

11 A Okay.

12 Q Is it your position that for a system to be
13 100 percent used and useful when it is built out there must
14 also be a showing that the system was designed prudently?

15 A Yes.

16 Q Your position is that one of the initial steps to
17 determining if a system was prudently designed is to perform a
18 used and useful calculation; isn't that right?

19 A Yes, it is.

20 Q Is it your testimony that engineers perform used and
21 useful calculations when they design distribution systems?

22 A Design and used and useful are not correlated. No,
23 they do not.

24 Q They don't do that, do they?

25 A No.

1 Q Let's talk about fire flow for a moment,
2 Mr. Woodcock. Let me ask you to go to Pages 11 and 12 of your
3 prefiled direct testimony.

4 Do you agree with Mr. Guastella's contentions that
5 local governmental authorities often recommend a rate of flow
6 per hydrant?

7 A Yes.

8 Q Do you agree that fire flow requirements need to be
9 met for an entire water system, taking into account the
10 population being served, not just an individual building?

11 A Can you repeat the question?

12 Q Yeah. Do you agree that fire flow requirements for a
13 utility need to be met for the entire service area, the entire
14 water system, taking into account the population of the
15 community being served?

16 A Okay. One more time. If you could repeat the
17 question.

18 Q Sure. Sure. Do you agree that fire flow
19 requirements need to be met for an entire water system, an
20 entire service area, taking into account the population of the
21 community being served?

22 A If there are fire flow requirements within that
23 community, it needs to be met to the extent that there are, you
24 know, fire flow requirements that are put on the developments
25 that are within that system.

1 Q That would be a yes to my question then?

2 A No, it's not. It's actually a qualified yes to your
3 question.

4 When you're looking at fire flow requirements, you're
5 looking at developing -- you know, a system may come in and
6 have new fire flow requirements put upon it in different areas
7 of its service area. I think it's very rare that you have an
8 open field and a fire flow requirement and a utility comes in
9 and says we're going to design everything to this fire flow
10 requirement.

11 Q You agree, do you not, that a utility has to have
12 sufficient fire flow to address fires throughout its entire
13 service area, don't you?

14 A I'm going to say that that is rarely the case. That
15 may be the case.

16 Q What's the answer to my question?

17 A Not always.

18 Q Would you agree that a water distribution system must
19 be properly designed and capable of meeting fire flow demands
20 throughout its entire service area, including instances where
21 there are multiple or coincidental fires?

22 A I think that a water treatment system would be and is
23 typically designed based on the fire flow requirements that are
24 out there by the local government. To the extent that they
25 include those types of multiple fire situations, then, yes.

1 Q Would you agree that proper engineering design would
2 have a water distribution system capable of meeting fire
3 service requirements throughout the service area?

4 A I believe you already asked me that question. You
5 know, it's, it's a maybe. Within a specific service area you
6 don't know what the specific fire flow requirements may be. In
7 other words, there may have been none back in the 1960s when
8 the utility was created and, therefore, there are parts of that
9 system that have no hydrants and their lines are not sized to
10 provide service for fire. There may be newer developments that
11 come in that do have a fire requirement, and in that case the
12 utility would need to provide that fire requirement. But it's
13 not, it's not just as easy as the systemwide. I think that's
14 what I'm having trouble with your, your question.

15 Q Okay. I just have a few more questions,
16 Mr. Woodcock.

17 The issue of unaccounted for water, would you agree
18 that all water systems experience water losses or unaccounted
19 for water?

20 A Yes.

21 Q Would you agree that as a water distribution system
22 gets old that water losses tend to go up but that the original
23 cost of the system obviously does not change?

24 A Yeah. Provided there's no reinvestment into that
25 system you could safely make that statement.

1 Q Would you agree that water systems are expected to be
2 able to meet maximum demands in addition to water losses?

3 A Can you repeat that question again?

4 Q Would you agree that water systems are expected to be
5 able to meet maximum demands in addition to water losses?

6 A Well, they are designed to meet maximum day or
7 maximum demands, let's say, peak demands, whatever the basis
8 is. Typically in the design process I have never come across a
9 case where you're automatically building in, oh, we're going to
10 lose 10 percent of our water.

11 Q In a real world though doesn't a water distribution
12 system sort of have to account for its water system losses and
13 still be able to meet the maximum demands of the customer base?

14 A Yes.

15 MR. HOFFMAN: No further questions. Thank you,
16 Mr. Woodcock.

17 THE WITNESS: Thank you.

18 CHAIRMAN CARTER: Commissioners, any questions?
19 Commissioners? Mr. Friedman, you're recognized.

20 MR. FRIEDMAN: Thank you.

21 CHAIRMAN CARTER: Then I'll come back to staff.

22 CROSS EXAMINATION

23 BY MR. FRIEDMAN:

24 Q Mr. Woodcock, can you see me way down here?

25 A I can.

1 Q Okay. As an engineer have you designed water
2 facilities?

3 A Yes, I have.

4 Q And have some of these water facilities that you've
5 designed been for private utilities regulated by the Public
6 Service Commission?

7 A Yes, I have.

8 Q And in designing those systems did you take into
9 consideration the Public Service Commission's policies on used
10 and useful in existence at that time?

11 A The systems that I worked on for investor-owned
12 utilities in my career was very early on. I was one of a
13 number of engineers on the project. I was not the overall
14 project manager. So I will answer your question by saying, no,
15 not to my knowledge on those systems.

16 Q And so isn't it true that the systems that you
17 designed might never be 100 percent used and useful as the
18 Public Service Commission may determine?

19 A I would have no knowledge about that for those
20 systems.

21 Q What systems did you design?

22 A The ones that come to the top of my head are the
23 Venice Gardens utility systems for Southern States Utilities
24 and the Burnt Store Water Treatment Plant for Southern States
25 Utilities. I believe that those are the only two that I've

1 been a part of for an investor-owned utility.

2 Q And so when you were designing those systems, you
3 didn't pay any consideration to a used and usefulness of those
4 from a regulatory standpoint?

5 A I was not in a position as an engineer on those
6 projects. I was one of several engineers. I was not the
7 project manager, so I do not know. I know that I personally
8 did not, but I had a very small part of those projects. I was
9 not the lead design engineer, I wasn't the contact with the
10 client. I don't know what went on as far as the specific
11 sizing of those facilities. I was putting specifications
12 together and blueprints.

13 Q But in none of the meetings that you went to was the
14 concept of used and usefulness discussed when designing the
15 systems.

16 A You know, I would say for those two meetings -- I
17 mean, they were done in the first couple -- or for those two
18 projects that were done in the first couple of years of my
19 experience as an engineer I don't even think I went to any
20 client meetings.

21 Q How about meetings just among the engineering group
22 itself, did the issue of used and usefulness, was that concept
23 discussed in the design?

24 A Not to my recollection.

25 Q You didn't have any courses on used and useful in

1 your engineer school, did you?

2 A I did not. Used and useful is not really an
3 engineering concept.

4 Q Okay. It's just a utility ratemaking concept, is it
5 not?

6 A Correct.

7 Q Now if a system has no storage -- this goes to the
8 issue you were discussing with Mr. Hoffman about the well pump
9 in some instances being the high service pump. Do you remember
10 that discussion?

11 A Yes.

12 Q Okay. And so if a system has no storage and the well
13 pumps act as the high service pumps, under your rule proposal
14 would you evaluate for used and usefulness for the well pumps
15 and treatment pumps be under the treatment plant rule or the
16 high service pump proposal?

17 A In the way that my testimony is worded and the
18 exhibit that is attached to my direct testimony it would be
19 done as a well pump for a system without storage.

20 Q So you wouldn't, you wouldn't, you would not evaluate
21 it separately as a high service pump.

22 A The -- in my mind, in the intent in what I have
23 proposed in my testimony, those calculations would be
24 identical.

25 Q Okay. In systems that have -- let's start with

1 systems that have no storage. Is there sufficient demand 24
2 hours a day, seven days a week for 365 days a year to run those
3 pumps?

4 A For systems without storage?

5 Q Correct.

6 A Is there enough demand to keep them running 24 hours
7 a day, 365 days a year?

8 Q That's correct.

9 A No. For a, a system that does not have storage,
10 those pumps have to be sized based on what the peak hour demand
11 is. Therefore, those pumps will be sized to be able to provide
12 that peak hour and will run consistently for that peak hour.
13 Throughout the rest of the course of the day they will come on
14 intermittently in order to provide whatever the demand is on
15 the system.

16 Q Now even with systems with storage, isn't it true
17 that there isn't sufficient demand 24 hours a day, seven days a
18 week, 365 days a year to run those pumps continuously?

19 A Are we talking about the well, the well pumps?

20 Q That's correct.

21 A Okay. For water treatment systems with storage there
22 is not demand to run the well pumps, which would be sized based
23 on maximum day to keep them running 24/7/365.

24 Q Now I understand that you're recommending some
25 language be added in the section dealing with excessive

1 unaccounted for water that would require that the document,
2 that there be documentation for line flushing, fire fighting
3 and line breaks, that it be documented by complete records?

4 A Yes.

5 Q And is the term "complete records" an engineering
6 concept that we can look to a definition of what that is?

7 A I would say not.

8 Q So wouldn't you agree that as to the term "complete
9 records," that different people equally qualified could have
10 different definitions of that term?

11 A Yes.

12 Q Doesn't the Public Service Commission already have a
13 rule that places the burden of proof on the utility to prove
14 each schedule of its minimum filing requirements?

15 A I don't know specific knowledge of that, but, yes, I
16 believe that is the case.

17 Q And isn't the used and useful calculation a schedule
18 in the minimum filing requirements?

19 A Yes.

20 MR. FRIEDMAN: That's all the questions we have.
21 Thank you.

22 CHAIRMAN CARTER: Thank you.

23 Commissioner Argenziano.

24 COMMISSIONER ARGENZIANO: Thank you, Mr. Chair. Just
25 a couple of questions real quick.

1 Why does 24-hour pumping make sense to you as an
2 engineer?

3 THE WITNESS: As far as the well fields go?

4 COMMISSIONER ARGENZIANO: Uh-huh.

5 THE WITNESS: Well, number one, you want to look to
6 get essentially the most bang for your buck. If you're going
7 to sink a well in the ground, you're going to want to run it
8 for as long as you can.

9 Now keep in mind that if you're designing a water
10 system, that well field is going to be based probably on
11 maximum day, let's say. So it's only going to be running 24
12 hours for one day out of a year. But, you know, essentially
13 what we're looking to do as an engineer is to, you know, get
14 the most for what we have to build, and so 24 hours kind of
15 becomes the default.

16 COMMISSIONER ARGENZIANO: Well, would you take into
17 consideration then or should you take into consideration
18 configuration of the piping and so on that I've heard before?

19 THE WITNESS: It's generally done when you're looking
20 at sizing those well pumps and what they can be capable of
21 delivering. In other words, you would be -- you would pick,
22 design and install a well pump that would be able to handle a
23 multiple pump configuration.

24 COMMISSIONER ARGENZIANO: And if I would, forgive my
25 ignorance, wouldn't that be done before you sink the wells in

1 the design process?

2 THE WITNESS: Oh, absolutely. It's part of the
3 design process. Yeah. And it also plays into sizing the wells
4 also, the well hole itself.

5 COMMISSIONER ARGENZIANO: Okay. Well, then after the
6 fact if you're going to implement 24-hour pumping, how would
7 you take that into account if they weren't designed that way?

8 THE WITNESS: I'm sorry?

9 COMMISSIONER ARGENZIANO: Maybe I'm not saying it
10 right. If the wells were already -- the design process is
11 done, the wells are in, and now you're going to run the pumps
12 24 hours a day but they weren't designed that way, how would
13 you accommodate for that now?

14 THE WITNESS: Okay. If, if the wells weren't
15 designed for 24 hours a day, and we're making that supposition
16 that we designed them for --

17 COMMISSIONER ARGENZIANO: Right.

18 THE WITNESS: Right, that they're only going to --
19 and this is --

20 COMMISSIONER ARGENZIANO: Or if I restate that.
21 Maybe it -- if that was the case, then that would have to be
22 taken into account if you were going to implement a rule that
23 said 24-hour pumping.

24 THE WITNESS: Yes, I would say that it would. Yes.

25 COMMISSIONER ARGENZIANO: Okay. Thank you.

1 CHAIRMAN CARTER: Commissioners, any further
2 questions?

3 Staff, you're recognized.

4 MS. GERVASI: Thank you, Commissioner. We do have
5 some questions for Mr. Woodcock, but I wonder if we could take
6 maybe a five-minute break so that staff can consolidate those
7 questions. We want to make sure we don't ask repetitive
8 questions.

9 CHAIRMAN CARTER: I'm looking at the clock on the
10 wall, Commissioners. What say we come back at 11:30.

11 MS. GERVASI: Thank you.

12 CHAIRMAN CARTER: 11:30? Okay. We're on break.

13 (Recess taken.)

14 We are back on the record for our hearing, and,
15 staff, you're recognized.

16 MS. GERVASI: Thank you.

17 CROSS EXAMINATION

18 BY MS. GERVASI:

19 Q Good morning, Mr. Woodcock.

20 A Good morning.

21 Q Would you please turn to Page 9 of your prefiled
22 direct testimony and take a look at Lines 12 through 21 of Page
23 9.

24 A Okay.

25 Q Here you discuss peak demand for a water treatment

1 system without storage; is that correct?

2 A That is correct.

3 Q Why do you include fire flow in the maximum day
4 demand but you don't include fire flow in the maximum hour
5 demand?

6 A Well, when you're evaluating high service pumps or in
7 this case well pumps without storage, you do it on a two-prong
8 test. Number one, peak hour, you want to meet that highest
9 peak in the day on the maximum day out of the year. That's one
10 thing that the high service pumps need to do.

11 When you're looking at a system that has a fire flow
12 requirement, you also want to look at what that impact of the
13 fire flow requirement might be on the facilities. DEP
14 recommends that you look at fire flow as a peaking factor for
15 facilities with a background demand of maximum day. So when
16 we're evaluating water treatment systems that do not have
17 storage where the well acts as high service, we take the
18 two-pronged approach, we look at both cases. It's going to be
19 either the greater of either the peak hour demand or the
20 maximum day plus fire flow. And this is in recognition of the
21 fact that sometimes fire flows can be way greater than peak
22 demands in a system, and so you want to make sure that you've
23 got your bases covered on fire flow.

24 Q If there's a fire and the water system does not have
25 storage, where does the water come from to extinguish the fire?

1 A If there is a fire and the water system doesn't have
2 storage, it would have to come from the well pumps.

3 Q And where does the fire flow come from if, if it
4 occurs during peak periods, if the fire occurs during peak
5 periods?

6 A Peak periods as in the peak hour demand, is that what
7 you're getting at?

8 Q Yes.

9 A Okay. Well, number one, you're looking at the
10 possibility of a fire occurring during the largest, the peak
11 hour of the peak day of the maximum day out of the year. When
12 you're designing facilities, you kind of have to weigh a risk
13 there regarding, you know, what is the likelihood of that
14 actually happening versus sizing, oversizing your facilities.
15 That's why the standards that I'm presenting here, which are
16 also DEP standards for sizing high service pumps, kind of
17 incorporate the language that I have embodied here.

18 Secondly, I would say that when you're looking at a
19 fire occurring in the peak hour, typically you're going to see
20 a lot of demand being placed on the system. What that does is
21 essentially lower the system pressure. When you're looking at
22 lower system pressures, you're not basically getting as much
23 water out of any given faucet as you normally would because a
24 lot of it's going to the hydrants. So I would say that having
25 a fire on your peak hour would tend to suppress the impact of

1 your peak hour on the system.

2 Q Would you agree that in the event of a fire in a
3 system that does not have storage that the fire flow would have
4 to come from the wells if the fire occurs during peak periods?

5 A Yes, it would have to come from the wells. Yes.

6 Q Thank you. Please turn to Page 12 of your direct
7 testimony, and take a look at Lines 10 through 14 of Page 12.

8 A Okay.

9 Q And here you discuss peak demand for storage;
10 correct?

11 A Yes.

12 Q And you're recommending that 25 percent of the
13 utility's maximum day demand be used as peak demand for
14 storage; right?

15 A Plus an allowance for fire flow, if, if required, if
16 provided.

17 Q Would you apply the 25 percent maximum day storage to
18 any type of water treatment plant regardless of whether it's a
19 line softening, reverse osmosis, an ion exchange, et cetera,
20 any type of water treatment plant?

21 A Yes. Storage basically comes after your major
22 treatment process, and the demands that are placed from the
23 system, you know, kind of start with that storage tank. So,
24 yeah, you would generally size storage tanks the same
25 regardless of what the upstream treatment process might be.

1 Q Thank you. Do you agree that the 25 percent maximum
2 day storage is for flow equalization?

3 A I do.

4 Q Do you believe that an allowance of 25 percent of the
5 peak demand for storage allows for emergencies such as pipe
6 failures, major trunk main failures, equipment failures, et
7 cetera?

8 A Well, to the extent you have those in your system and
9 they're going to be pulling from your storage tank, yes, it
10 does.

11 Q Is it your experience that your 25 percent of peak
12 demand proposal reflects how storage facilities are designed
13 for new water systems?

14 A It is in accordance with the current FDEP rules.
15 Yes.

16 Q Thank you. Please turn to Page 14 now of your direct
17 testimony on Lines 10 through 12 of Page 14. Here you
18 recommend that any water claimed as accounted for that was used
19 for flushing, fire fighting and water lost through line breaks
20 must be documented by complete records of these flow losses.
21 And I know we discussed -- you've discussed this somewhat in
22 previous questioning. We're interested in knowing what
23 specific documentation you would recommend that the rule
24 require.

25 A Well, it's going to vary from system to system and

1 it's also going to vary depending upon what type of accounting
2 there is of the water. Number one, for routine line flushing I
3 would expect to see, you know, daily flushing logs of, you
4 know, what valve was open, how long was it flushed for, what is
5 the estimate? Some type of contemporaneous thing.

6 For fire hydrant testing I would expect the same
7 thing. For fire flows I'd expect some estimate of what the
8 fire -- what volumes were withdrawn from the system in order to
9 fight the fire.

10 Q Are you aware that the DEP requires documentation of
11 unmetered water uses by way of a line entry on a company's
12 monthly operating report or water plant daily log?

13 A You know, I can't say that I have seen that.

14 Q Okay. Would you agree that in dollars the
15 unaccounted for water adjustment that is typically made in a
16 water rate case is small if any adjustment is needed?

17 A I can't say I've been involved in a lot of rate cases
18 to be able to say what typically happens.

19 Q Thank you. Are you aware that if there have been no
20 known changes to a water system and the water system was
21 100 percent used and useful previously, in a previous rate
22 case, that the Commission has found that that system should be
23 100 percent used and useful again in the next rate case or in
24 the current rate case?

25 A And your question is am I aware of that?

1 Q Yes.

2 A I am not aware of that. I think that it's also very
3 highly unlikely you're going to have a system that has done
4 nothing: No demand patterns changed, no anything happen to a
5 system in between rate cases. I would think that is an
6 unlikely event.

7 Q So you're not aware that, for example, if the water
8 flow from the last rate case was reduced due to conservation
9 and the system was found to be 100 percent used and useful in
10 that previous case, that the Commission would find the system
11 to again be 100 percent used and useful the next time around,
12 in the next rate case?

13 A Well, I would say, you know, are those conservation
14 efforts long-term? You know, maybe it's gone back up, maybe
15 it's reduced further. It would be hard to tell without
16 starting at least the used and useful process over again as
17 part of a new rate case.

18 Q Thank you. Please turn to Page 18 of your direct
19 testimony at Lines 9 through 12. And here you state that when
20 there is only one well, the used and useful calculation should
21 be based on the capacity of that single well; correct?

22 A Correct.

23 Q And then also on Page 18 at Lines 14 through 17 you
24 state that removing the largest well from service is an
25 acceptable way to calculate used and useful for multiple well

1 systems; however, for single well systems there is not a
2 redundant, standby well that can be removed, and in these cases
3 the used and useful should be evaluated on the single well in
4 service; correct?

5 A Correct.

6 Q Have you ever designed a water system in Florida that
7 has, that had only one well?

8 A I'm going to say that I am not sure because I think
9 there might be one case where I did, and that was the East
10 Palatka Water System. I can't remember if we had two wells on
11 that or not.

12 Q Thank you.

13 A It was a very small system.

14 Q Are you aware of the Commission's practice to
15 consider systems with one well or one high service pump to be
16 100 percent used and useful?

17 A I'm aware of that practice, I guess, to the extent
18 that it's in the proposed rule.

19 Q Thank you. If you would please turn to Page 21 of
20 your direct testimony at Lines 9 through 12.

21 A Okay.

22 Q And here you state that the DEP rules for public
23 water supply wells make no specific reference to a requirement
24 that would require that well pumps be limited to 12 hours of
25 pumping per day if the system includes storage. And you say

1 that prudent and efficient design of a well system would seek
2 to maximize the pumping time to the daily maximum of 24 hours;
3 right?

4 A Correct.

5 Q Do you agree that water plants do not provide
6 constant flow for 24 hours a day?

7 A They provide the demands that are on the system for
8 24 hours a day. Sometimes they can be for 24 hours a day. You
9 can always have some draw on your utility system.

10 Q You do agree that there are peak periods during the
11 day; right?

12 A Yes, there are peak periods during the day.

13 Q How would running the well pumps 24 hours a day
14 affect the used and useful life of those pumps?

15 A How would running the pumps 12 hours a day affect the
16 used and useful life of the pumps?

17 Q How would running them 24 hours a day affect the
18 usefulness or the useful life of those pumps?

19 A The useful life. Okay. Well, number one, keep in
20 mind they'll never be operating 24 hours a day, seven days a
21 week, 52 weeks a year. If the system is properly designed, you
22 know, they're going to be operating, you know, 24 hours a day
23 maybe on a max day.

24 I really don't think I can give you a clear
25 definition on, on your specific question simply because pumps

1 like to operate when they're turned on and they like to keep
2 running. One of the hardest stress points on the mechanics of
3 a pump is when it gets turned on, when all the still things are
4 actually getting innervated and pulling together. So you have
5 a situation where running it longer over longer periods of time
6 may actually be more advantageous than having it start, stop,
7 start, stop a lot. By the same token, I would say, you know,
8 just like you run a car forever, maybe the reverse case could
9 be true. I could make an argument both ways on that.

10 Q Thank you. I have only a few remaining questions for
11 you and they concern high service pumping costs. If you would
12 please take a look back at Page 7 of your direct testimony. At
13 Lines 20 and 21 of Page 7 you state that high service pumps
14 after storage are separate and distinct components from both
15 water treatment and storage; correct?

16 A Correct.

17 Q Would you agree that ground storage and high service
18 pumps are designed to work together and are usually designed
19 and installed at the same time?

20 A They are designed to work together in the sense that
21 everything in a water treatment plant has to work together and
22 be designed appropriately, accordingly.

23 You can have increases in your high service pumping
24 capacity without increasing your pumps. They don't necessarily
25 always have to be constructed together.

1 Q In your experience have you seen any instances where
2 a water system's high service pumps were significantly
3 oversized in anticipation of future storage expansion?

4 A I cannot say that for the pumps themselves. Usually
5 when you have that type of a situation you would leave a blank
6 spot to put in an extra pump in the future.

7 Q Thank you. Would it be more cost-effective for a
8 utility to install a single storage facility to meet its peak
9 demand or to add storage periodically as needed?

10 A Well, that's a difficult question to answer. It
11 depends on, you know, the economics of it. There may be
12 economies of scale in getting a larger tank. You know, you
13 have -- if tanks are built with steel, steel prices fluctuate
14 wildly so you may see your costs go up or down in the future.
15 You're actually going to be using up more of a site if you have
16 multiple tanks. That's kind of a hard determination to make in
17 general.

18 MS. GERVASI: Thank you. We have no further
19 questions. Thank you.

20 CHAIRMAN CARTER: Commissioners? Commissioner Skop,
21 you're recognized.

22 COMMISSIONER SKOP: Thank you, Chairman Carter.

23 Just trying to collect my thought on one question
24 that arose. I was wondering if -- I know that there's been a
25 lot of discussion that the theoretical capacity of the pump

1 should be included in the denominator as opposed to the 12
2 hours. So I was wondering if Mr. Woodcock, if he -- if the
3 terminology in terms of "firm reliable capacity" was maybe
4 expressed differently in terms of some other language, would
5 your testimony still be the same to the extent that you feel
6 that -- well, I've heard conflicting testimony. What I think I
7 hear is that, again, the design is based on the theoretical
8 maximum that the pumps will operate at their most efficient
9 point for 24/7 pumping the capacity through the distribution
10 system. And the tension here seems to be between -- that
11 what's theoretical doesn't really relate in a ratemaking idea
12 to what the actual or expected utilization of those pumps are
13 going to be. But the term we're using is "firm reliable
14 capacity," which kind of takes out the biggest pump, assuming a
15 failure, to get some sort of reliability type index, if you
16 will.

17 I'm wondering, and, again, this is my question, if it
18 was not defined as "firm reliable capacity" and it was just
19 defined maybe something differently, maybe perhaps expected
20 flow or expected normal or something like that, would your
21 testimony be different to the extent that you would back away
22 from the 24-hour requirement and support the 12?

23 THE WITNESS: I would have to say, no, it would not
24 change my testimony.

25 COMMISSIONER SKOP: And can you offer a reason for

1 that?

2 THE WITNESS: Well, I'm not quite sure I 100 percent
3 follow you. But I guess in one sense it's not necessarily a
4 matter of semantics like how we word it. I mean, there's a
5 design consideration that's at stake here.

6 If you design a well system, let's say there are
7 three wells, you're going to design it so that two of those
8 wells are going to be able to meet your maximum demands.
9 They're not going to operate 24/7 365 days a year. They're
10 going to operate maybe 24 hours a day on that maximum day and
11 there's an additional pump here that we have out of service.

12 And when you go in and you're designing a well field,
13 that's what you look for them to do. You recognize that those
14 pumps will be operating 24 hours a day on that max day. If you
15 were to design them for, in order to operate 12 hours a day on
16 that maximum day, you'd essentially need to double the size of
17 all of your pumps in order to incorporate that.

18 So the real crux of the matter here that I have is
19 that we've got a whole factor of two that is, that is
20 determining how used and useful is going to be calculated with
21 respect to water treatment systems.

22 COMMISSIONER SKOP: And thank you. And, Mr. Chair,
23 just as a brief follow-up. And I do appreciate that because, I
24 mean, as I understood, and I'm also an engineer, you know,
25 certainly the design characteristics, you need to take into

1 account the maximum hourly flow and peak demands and fire flow,
2 factor safety and maybe some growth margin and a provision for
3 the fact that the pumps and the piping may not operate as
4 efficiently through their expected useful life as they would
5 when they're brand new and clean.

6 But I guess what I'm struggling with is from a
7 ratemaking perspective, looking at what's fair, to the extent
8 that just because you have to build something that is for the
9 worst-case scenario and maybe oversized to some degree doesn't
10 necessarily mean it's going to operate at that, you know, at
11 that maximum design point all the, all the time. And so I
12 think that that seems to be in my understanding what the
13 tension here is between OPC and the, and the utilities. And,
14 again, I'm just trying to flush that out for my own reasoning.
15 But I was just wondering -- again, it occurred to me whether it
16 was a matter of the definition controlling the testimony in
17 terms of "firm reliable capacity," because I could see
18 arguments both ways on that just based on the wording as
19 opposed to if it wasn't defined like that, whether you would
20 back away. And I think the answer was no for the reasons you
21 articulated, so thank you.

22 CHAIRMAN CARTER: Thank you, Commissioner.

23 Commissioner Argenziano.

24 COMMISSIONER ARGENZIANO: Just one other question.

25 And if considering 24-hour, allowing 24-hour pumping to take

1 place in the rule, should one consider -- or do you know if the
2 older systems are capable or if they were designed or -- I'm
3 trying to figure out in my mind if the rule were to change for
4 24 hours, how many systems were designed that way or --

5 THE WITNESS: Let me reverse the question a little
6 bit and say I know of no system that has been sized on just 12
7 hours of pumping.

8 COMMISSIONER ARGENZIANO: Okay.

9 THE WITNESS: I know every system that I've been
10 involved in and when I evaluate systems, not just in used and
11 useful, but for master plans and for other engineering
12 situations, you know, we look at taking one pump out of service
13 and then we're saying, okay, this is the maximum your well
14 field can supply and have that go over 24 hours.

15 COMMISSIONER ARGENZIANO: Thank you.

16 CHAIRMAN CARTER: Is your -- just kind of a -- when
17 you're saying 24 hours, you're saying that it may, it should be
18 prepared to go 24 hours at the time that it's needed for that
19 one -- I think you said it may be once a year for that peak
20 period; is that right?

21 THE WITNESS: That is correct.

22 CHAIRMAN CARTER: But not as a general rule because
23 they don't run at 24 hours.

24 THE WITNESS: Yeah. No. You would very rarely see
25 an entire well system running at 24/7 because the demands are

1 always going to be up and down throughout your system. It
2 would be designed for that maximum case situation.

3 CHAIRMAN CARTER: Okay. Thank you. Before I go back
4 to the parties, Commissioners, any further questions?

5 Okay. Mr. Reilly.

6 MR. REILLY: Very few. I guess --

7 MR. FRIEDMAN: Chairman Carter, I want to raise, I
8 want to raise an objection to Mr. Reilly conducting redirect
9 examination. During Mr. Woodcock's deposition -- during his
10 testimony I had noticed Mr. Reilly writing notes. During the
11 intermission Mr. Reilly took those notes, went over in the
12 corner and talked to this witness, and it's inappropriate to do
13 that. And typically when that has happened courts have
14 sanctioned the party by not allowing them to have redirect
15 examination, and I think that's appropriate here. It is very
16 inappropriate to discuss with your witness proposed redirect
17 testimony. And I have reason to believe since Mr. Reilly had
18 that pad in front of him and was talking with Mr. Woodcock for
19 quite a while that that was discussed, and that's
20 inappropriate.

21 CHAIRMAN CARTER: Mr. Reilly.

22 MR. REILLY: I was not talking to him for quite a
23 while, and I did begin to say that I was going to ask him
24 redirect. And so what I've done is -- and he said, "You
25 shouldn't be talking to your witness." And I said, "Yes,

1 you're right," and then I stopped. And so I have not asked any
2 redirect questions on either of those subjects. I didn't
3 suggest any answers. I said, "I was going to ask you redirect
4 on these two things." And so in light of his comments, I am
5 not posing those redirect questions basically. So then the
6 conversation ended. And I have really only a couple of
7 questions.

8 MR. FRIEDMAN: I think even what he did, telling him
9 what questions he was going to ask is inappropriate.

10 MR. REILLY: Well, and I think that point is
11 well-taken and those are questions that I'm not posing. So
12 that's --

13 CHAIRMAN CARTER: Let's tread lightly, Mr. Reilly.

14 MR. REILLY: Okay.

15 CHAIRMAN CARTER: And, and as we tread lightly, let's
16 remember the rulings made earlier.

17 MR. REILLY: All right.

18 REDIRECT EXAMINATION

19 BY MR. REILLY:

20 Q Mr. Woodcock, you were asked by Utilities, Inc. about
21 how you would calculate used and useful for high service
22 pumping. I think your answer was that you would calculate it
23 the same as treatment; is that correct?

24 A For high service pumping without -- same as treatment
25 without storage, I believe.

1 Q Without storage. And my question is how would you
2 calculate peak hour demand and maximum day demand for high
3 service pumping? Would it be the same as treatment or in some
4 other way?

5 A Yes. I would, I would calculate it the same.

6 Q The only other question -- let's see. I think you
7 were also asked, "Do engineers do a used and useful calculation
8 when they're designing a system?" And I think your answer was,
9 "No, they don't generally do a used and useful calculation when
10 they're designing a system."

11 A Correct.

12 Q And my question to you as a follow-up is what, what
13 do engineers properly do to try to match what they're building
14 with the anticipated demand?

15 A Well, number one, if you're looking at designing an
16 expansion to an existing system, you've got a pretty good idea
17 of what the existing customer base is and what those flows are,
18 and so you would, you would size your system based on similar
19 flows. You have a pretty good idea of what actually is going
20 to happen there.

21 In the event where you are building a new system, you
22 would use some design standard. If you were building it from
23 the ground up, had no customers, you would use a design
24 standard to size the first phase of your facilities.

25 MR. REILLY: Okay. And the last matter is a matter

1 I'd almost yield to the Commission to give me some guidance
2 because as I was, I was talking to him during the break, I said
3 he had questions about the minimum, you know, that high service
4 pumps don't cost very much, it was very minimal. And at that
5 point I said, you know, I don't even know what his answer is
6 going to be. But, I mean, to the extent that he would -- I was
7 going to ask him a question about to the extent he could expand
8 on the cost of high service pumping.

9 CHAIRMAN CARTER: Let's don't do that. Let's don't
10 do that. Let's, let's --

11 MR. REILLY: Okay. Then I'll leave, I'll leave that
12 one alone.

13 CHAIRMAN CARTER: Yeah. Let's leave that alone. I
14 think -- and I've been -- and I want to give you as much
15 latitude as possible, but I have to respect the procedure and
16 the process.

17 MR. REILLY: And that's fine. Then that concludes
18 those few comments.

19 CHAIRMAN CARTER: Mr. Hoffman.

20 MR. HOFFMAN: Mr. Chairman, if we could just get a
21 point of clarification. In Mr. Reilly's redirect first
22 question, I think the witness gave an answer with respect to
23 how he would calculate high service pumping. And I just want
24 to make sure that, that the witness was not effectively saying
25 that he would calculate high service pumping in the manner set

1 forth in the revised exhibit which the Chairman has excluded
2 from the record. Because I think he testified that he would
3 calculate it in the same way as a well, and I'm just not sure
4 if that's a different way of trying to get into the record a
5 subject that you have already excluded from the record. So
6 perhaps we could get some clarification.

7 CHAIRMAN CARTER: Mr. Woodcock, you were here when I
8 made the ruling, were you not?

9 THE WITNESS: Yes, I was.

10 CHAIRMAN CARTER: And you did not violate the ruling,
11 did you?

12 THE WITNESS: I did not.

13 CHAIRMAN CARTER: Okay. I'll take the witness at his
14 word.

15 MR. HOFFMAN: Thank you, Mr. Chairman.

16 CHAIRMAN CARTER: Okay. Any further questions for
17 this witness, any of the parties?

18 Now we do have the matter of Exhibit 2, which is
19 ATW-1. I'll give the parties an opportunity to look at that.

20 MR. FRIEDMAN: No objection.

21 CHAIRMAN CARTER: No objections.

22 MR. HOFFMAN: No.

23 CHAIRMAN CARTER: No objections.

24 MR. REILLY: Let me clarify. It's my understanding I
25 have offered into evidence only ATW-1. I don't think it's

1 helpful to at this time submit ATW-2 as filed with his direct
2 testimony because it's quite dated. And so this helpful single
3 place area that I wanted everyone to look at for our suggested
4 changes is not useful anymore because it's been, it's been
5 ruled -- so I don't think it's helpful. So the only, the only
6 exhibit I am moving into the record at this time is ATW-1.

7 CHAIRMAN CARTER: What I was doing, Mr. Reilly, we
8 normally after the testimony, direct and cross of a witness, we
9 usually admit the exhibit. And I was just giving the parties
10 an opportunity to say whether or not they had objections, and
11 there are no objections on our Exhibit 2 which is marked as
12 ATW-1. Show it moved in.

13 (Exhibit 2 admitted into evidence)

14 Call your next witness. Is that -- that's your only
15 witness, Mr. Reilly?

16 MR. REILLY: That is our only witness. Yes.

17 CHAIRMAN CARTER: Mr. Hoffman, I think you're
18 recognized.

19 MR. HOFFMAN: Thank you, Mr. Chairman. Aqua
20 Utilities Florida would call John Guastella.

21 CHAIRMAN CARTER: By the way, Mr. Woodcock, you are
22 excused. So if you have to catch a flight or something --

23 MR. REILLY: No. He has rebuttal testimony, too.

24 CHAIRMAN CARTER: Rebuttal?

25 MR. REILLY: Yes.

1 CHAIRMAN CARTER: Okay. Well, then don't catch a
2 flight. Catch a snack.

3 JOHN F. GUASTELLA

4 was called as a witness on behalf of Aqua Utilities Florida
5 and, having been duly sworn, testified as follows:

6 DIRECT EXAMINATION

7 BY MR. HOFFMAN:

8 Q Would you please state your name and your business
9 address?

10 A John F. Guastella, 6 Beacon Street, Suite 410,
11 Boston, Massachusetts.

12 Q Mr. Guastella, you've been sworn, have you not?

13 A I have.

14 Q By whom are you employed?

15 A Guastella Associates.

16 Q And in what capacity?

17 A I'm President of Guastella Associates.

18 Q Mr. Guastella, did you prepare and cause to be filed
19 12 pages of prefiled direct testimony in this proceeding?

20 A Yes.

21 Q All right. Do you have any corrections or revisions
22 to your testimony?

23 A Yes.

24 Q Would you please provide those to the Commission and
25 the parties?

1 A Yes. I have some typographical errors to correct.

2 On Page 4, Line 6, the word "is" should be "are,"

3 A-R-E. On the same page, Line 10, the word "increase" should

4 be "incur." On Page 6, Line 18, the word "great" should be the

5 word "greater."

6 CHAIRMAN CARTER: Wait a second. On Line 18?

7 THE WITNESS: Yes. The word "great" should be

8 "greater."

9 CHAIRMAN CARTER: Okay.

10 THE WITNESS: On Page 7, Line 13, before the word

11 "sections" I would insert "Exhibit JFG-3." That's Page 7, Line

12 13. Insert between "and" and "sections" the words "Exhibit

13 JFG-3." And the last is on Page 8, Line 20.

14 CHAIRMAN CARTER: State the line again, please.

15 THE WITNESS: Line 20, Page 8. The word "it" should

16 be stricken. It should read, "The calculation would." That's

17 all I have.

18 BY MR. HOFFMAN:

19 Q Mr. Guastella, with those corrections, if I asked you

20 the questions that are contained in your prefiled direct

21 testimony today, would your answers be the same?

22 A Yes.

23 MR. HOFFMAN: Mr. Chairman, I would ask that

24 Mr. Guastella's prefiled direct testimony be inserted into the

25 record as though read.

1 CHAIRMAN CARTER: The prefiled testimony will be
2 entered into the record as though read.

3 MR. HOFFMAN: Thank you, Mr. Chairman.

4 BY MR. HOFFMAN:

5 Q Mr. Guastella, you have attached four exhibits to
6 your prefiled direct testimony.

7 A Yes.

8 MR. HOFFMAN: And, Mr. Chairman, those exhibits have
9 been premarked for identification on staff Exhibit 1 as
10 Exhibits 4, 5, 6 and 7.

11 (Exhibits 4, 5, 6 and 7 marked for identification.)

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

2 A. John F. Guastella, Guastella Associates, Inc., 6 Beacon Street, Suite 410, Boston, MA
3 02108.

4
5 **Q. Please describe Guastella Associates, Inc.**

6 A. Guastella Associates, Inc. provides utility management, valuation and rate consulting
7 services to both regulated and unregulated utilities.

8
9 **Q. How long have you been involved in utility regulation and rate setting?**

10 A. My entire professional career has been in the field of utility regulation and rate setting:
11 first as a regulator for 16 years and then as a consultant for the last 29 years.

12
13 **Q. Have you attached to this testimony a summary statement of your education and
14 experience?**

15 A. Yes.

16
17 **Q. What is the nature of your involvement in this proceeding?**

18 A. Guastella Associates, Inc. has been employed by Aqua Florida Utilities, Inc.
19 (“Company” or “Aqua Florida”) to participate on its behalf in this proceeding.

20
21 **Q. Have you participated in the meetings and conferences conducted by the FPSC
22 regarding this rule making, and have you reviewed the FPSC Staff’s draft Rule
23 25-30.30.4325, F.A.C. Water Treatment Plant Used and Useful?**

24 A. Yes.

25

1 **Q. Does the Company support the adoption of the proposed rule?**

2 A. Yes. The purpose of the proposed rule is to establish manageable formulas with
3 which to establish used and useful percentages for certain utility facilities that are
4 reasonable and intended to significantly reduce the costly adjudication of such
5 issues in rate cases, particularly for smaller water utilities.

6

7 **Q. What are the general items that you would modify?**

8 A. I am recommending modification to the areas of maximum day demands,
9 unaccounted for water and fire flows.

10

11 **Q. How would you define “used and useful”?**

12 A. Used and useful is a regulatory rate setting term that is applied to the cost of utility
13 assets that are necessary to provide service to customers in order to economically
14 meet their demands on a continuous basis. Accordingly, the cost of facilities that
15 are used and useful would be included in rate base for rate setting purposes.

16

17 **Q. How are used and useful determinations applied in setting rates?**

18 A. Utility rates include components of revenue requirement that provide an
19 opportunity to earn a return on investment in utility facilities that are used and
20 useful, as well as a recovery of the cost of those assets through depreciation
21 allowances. The level of the cost of assets that are determined to be used and useful
22 also has a rate setting impact on property and income taxes.

23

24

1 **Q. Are the used and useful adjustments that are typically made in Florida**
2 **common in other states?**

3 A. No. However, the historical characteristics of Florida's water and wastewater
4 utilities and rate setting process are also different from those of other states.
5 Florida's water and wastewater utilities have generally been created in connection
6 with real estate developments that take long periods of time before completion.
7 Real estate development projects in other states are typically phased in or
8 completed in shorter time frames. In addition, Florida's rate setting has established
9 Service Availability Charges that are more extensive than, or even non-existent, in
10 other states. In my opinion, therefore, it is appropriate for the FPSC to establish
11 used and useful rules that balance the interests of the customers of developer related
12 utilities and the affiliated developers. I must also add that balancing those interests
13 in a rule with specific formulas requires a focus on some basic rate setting
14 considerations. The cost of utility facilities is determined according to engineering
15 design criteria, the goal of which is to ensure safe and adequate service on a
16 continuous basis. The engineering design standards are not established according to
17 rate setting procedures or used and useful calculations. Water systems are designed
18 to meet demands that include a factor of safety or cushion so that when fully
19 developed, it is expected that the capacity of the facilities will be greater than the
20 actual demands. Thus, used and useful calculations should not ignore sound
21 engineering design criteria. The rates should also recognize economies of scale and
22 prudence of investment.

23
24 **Q. What specific modifications do you recommend with respect to maximum**
25 **demands?**

1 A. The maximum demands, either maximum day or peak hour, should not be limited to
2 a rate setting test year. Rate setting test years are not a consideration in any
3 engineering design criteria or those established by environmental regulators. As a
4 practical matter, and in actuality, maximum demands can and have occurred prior to
5 rate setting test years. If it is recognized that the costs a water utility incurs for
6 facilities to meet maximum demands ^{are} ~~is~~ a valid cost to provide adequate service, as
7 should be the case, then that level of cost for capacity and facilities should not be
8 reduced because a lower absolute demand or demand per ERC occurred during the
9 rate setting test year. Using test year demands when previous demands were higher
10 is simply denying a cost the utility had to ^{incur} ~~increase~~ in order to adequately provide
11 service to existing customers.

12

13 **Q. Do you have any other recommendations regarding the maximum demands?**

14 A. Yes. The proposed rule would preclude the use of maximum day or peak hour
15 demands if there is an unusual occurrence on that day, in which case the rule
16 provides for the use of the average of the 5 highest days within a 30 day period
17 (which is understood to be any calendar month). I recommend eliminating the
18 provision to use a maximum 5 day average, and instead use the next maximum day
19 demand that had no unusual occurrence. I am not aware of any engineering design
20 criteria that would use an estimated 5 day average. Accordingly, the construction
21 cost of water utility facilities is not based on a 5 day average demand but the
22 maximum day demand. In fact, the engineering design would assume a maximum
23 day demand in excess of the actually expected maximum day in order to provide a
24 factor of safety or cushion in order to assure that there is ample capacity to meet
25 unforeseen circumstances. In addition, the use of a 5 day average produces costs

1 that are less than the actual cost of facilities that were needed on the days when the
2 demand was higher than the other days included in the average. The use of a 5 day
3 average therefore, denies the cost of serving existing customers, let alone growth.
4

5 **Q. What do you recommend with respect to unaccounted for water?**

6 A. I do not believe it is appropriate to make adjustments to demands for unaccounted
7 for water, because eventually all systems experience increasing levels of
8 unaccounted for water as systems age. The more appropriate regulator response is
9 to make a cost-justified decision as to whether the cost to correct the problem is
10 worth the benefit. However, because the proposed rule contains language in section
11 (Section 10) that provides for the handling of special circumstances, I am not
12 proposing a change to the formulas with respect to unaccounted for water.

13 There is, however, a correction that must be made to the arithmetic
14 described in (1) (e) of the proposed rule. Unaccounted for water is a percentage of
15 the total amount of water delivered to the water system. If the accounted for usage
16 is known or estimated, and assuming an acceptable unaccounted for level of 10%,
17 the unaccounted for quantity is properly calculated by dividing the known usage by
18 0.9 in order to determine the quantity delivered to the system. Then, the calculated
19 amount of water delivered to the system should be multiplied by 10% in order to
20 determine the unaccounted for quantity. Accordingly, I recommend changing the
21 language in Section (1) (e) to read, "Excessive unaccounted for water (EUW) is
22 finished potable water produced (delivered to the system) that exceeds 10% of that
23 production quantity." There is no need to complicate the rule with the specific
24 arithmetic, the correct use of which should be left to the party responsible for the
25 calculation.

1

2 **Q. What is your recommendation with respect to fire flow?**

3 A. Section (1) (c) provides for fire flow demands to be added to peak demands at “a
4 minimum of either the fire flow required by the local governmental authority or 2
5 hours at 500 gallons per minute.” This provision assumes that the local
6 governmental authority’s fire flow requirement is consistent with how the entire
7 water system should have been designed. It has been my experience however, that
8 local governmental authorities recommend a rate of flow per hydrant. Moreover,
9 the local governmental authorities do not necessarily have the expertise to establish
10 design criteria for the comprehensive water system, nor do they. It is more
11 appropriate and in my experience more accurate to rely on engineering design
12 criteria and recognized standards in order to establish the fire flow requirements.
13 The design of water systems, and their cost, with respect to the provision of fire
14 protection service is more properly based on engineering considerations that take
15 into account the requirements of the Insurance Service Organization (ISO) and its
16 predecessor, the National Board of Fire Underwriters (NBFU). The ISO’s fire flow
17 requirements relate to single structures, and when the formulas provided are used,
18 the results could be ^{greater} ~~great~~ than those of the local governmental authority, which may
19 be limited to individual hydrants. The NBFU has published fire flow requirements
20 for complete water systems that take into account the population of the community
21 being served, not just individual hydrants or buildings. The proper engineering
22 design of water systems should not only meet local requirements but, of equally if
23 not more importance, also meet greater demands if necessary to provide adequate
24 fire flows, throughout the service area.

25

1 **Q. How would you modify Section (1) (c)?**

2 A. I would simply change the last phrase to read, “where fire flow is provided, an
3 appropriate fire flow or a minimum of either the fire flow required by local
4 governmental authority or 2 hours at 500 gallons per minute.”

5

6 **Q. Have you provided exhibits containing ISO, NBFU and AWWA publications**
7 **or sections of publications setting forth fire flow requirements and/or**
8 **calculations?**

9 A. Yes. I have provided an ISO publication as Exhibit JFG-1, entitled, “Guide for
10 Determination of Needed Fire Flow,” Exhibit JFG-2 containing sections of a
11 publication by the NBFU entitled, “Standard Schedule for Grading Cities and
12 Towns of the United States with reference To Their Fire Defense and Physical
13 Conditions,” and ^{Exhibit JFG-3} sections of the “AWWA Water Rates” manual, 4th edition.

14

15 **Q. What information is provided by these publications?**

16 A. They provide guides and formulas for calculating fire flow requirements, all of
17 which indicate that except for the very small water systems serving only modestly
18 sized residential houses, the fire flow requirements that a properly designed water
19 system must meet could be significant for individual buildings, and must take into
20 consideration the use of multiple hydrants, and the need to meet fire flow demands
21 at every location throughout the system, and in some cases meet coincidental fires.

22 **Q. Have you reviewed the testimony of Mr. Andrew T. Woodcock on behalf of the**
23 **Office of Public Counsel?**

24 A. Yes.

25

1 **Q. Do you disagree with any of Mr. Woodcock's recommendations?**

2 A. Yes.

3

4 **Q. Do you agree with Mr. Woodcock's recommendations with respect to high**
5 **service pumps?**

6 A. Partially. I agree that high service pumps should be separately identified as to cost
7 and that their percentage of used and usefulness should not be the same as for
8 storage facilities. I disagree that the only additional data that would be required is
9 the capacity of the high service pumps. For those water systems that have multiple
10 high service pumps (many small systems do not), the capacity of those pumps alone
11 is not sufficient to establish their used and useful percentage. Typically, high
12 service pumps connect to a common transmission main, and when two or more
13 pumps are operated at the same time, they pump against pressure, resulting in flow
14 rates that are less than their respective rated capacity. Operators may also alternate
15 the use of multiple pumps, depending on demands, and not use all at the same time.
16 Accordingly, in most cases there is no need to perform a used and useful analysis of
17 pumps -- in most instances it can be determined that they are 100% used and useful
18 simply by observation. In instances where used and useful may be an issue with
19 respect to high service pumps, a formula that only provides for the ratio of demands
20 to capacity is not sufficient. The calculation ~~is~~ would have to take into account
21 judgments and analyses that are not readily convertible into a formula.

22

23 **Q. Do you agree with Mr. Woodcock's recommendation to change the definition**
24 **of peak demands for systems with storage?**

1 A. No. The requirement that water systems must be designed to meet the greater of the
2 maximum day plus fire demands or the peak hour demand, does not assume that
3 only storage facilities are needed to meet the potential fire demands which may
4 occur at any point in the system. Storage is provided for equalization, fire
5 protection and emergencies. Depending on the size of the system, storage facilities
6 may be located at various locations in the distribution system, not only at the source
7 of supply or treatment plant. In a fire event, all facilities are generally used at their
8 full capacity, not just storage facilities, in order to provide fire flows and general
9 demands, as well as the replenishment of stored water.

10 I am aware of actual fires that were experienced in systems of two of my
11 clients in Florida; Marco Island and Palm Coast utilities. The fire of Marco Island
12 was at a single 5 story building and the fire at Palm Coast was a forest fire that
13 consumed about 100 homes. In each case, all storage capacity was used and every
14 available source, treatment and pumping facility was operated at full capacity.

15 Aside from the fact that the design criteria with respect to fire flows and duration
16 were exceeded, the need to recognize the use of all facilities, not just storage, is
17 necessary and should be relied upon for fighting fires.

18

19 **Q. Do you agree with Mr. Woodcock's recommendation to revise the definition of**
20 **peak demand for storage?**

21 A. No. One objective of the proposed rule is designed to establish reasonable used and
22 useful criteria that eliminate unnecessary and costly controversy. As I previously
23 testified, storage facilities are designed with capacity for equalization, fire demands
24 and duration, and emergencies. The design of storage capacity will vary from

1 system to system, as well as from consultant to consultant. The proposed rule using
2 maximum day is, in my opinion, a reasonable criteria for a used and useful rule.

3
4 **Q. Do you agree with Mr. Woodcock's recommendation to provide**
5 **documentation of account for water?**

6 A. No. Mr. Woodcock does not specify the type of documentation that would be
7 acceptable. Water used for flushing, fire fighting, line breaks and other uses not
8 mentioned, are not routinely measured or metered. They are only determined based
9 on estimates. The basis for a utility's estimates of such items is readily reviewed in
10 the normal course of a rate investigation as to the reasonableness of the estimates.
11 Mr. Woodcock's recommendation for unspecified documentation merely creates an
12 excuse to eliminate reasonable estimates that are readily examined by experienced
13 engineers or operators.

14
15 **Q. Do you agree with Mr. Woodcock's recommendation to remove paragraph (2),**
16 **and remove subparagraphs (a) (b) and (c) of paragraph (4)?**

17 A. No. These paragraphs are essential if the proposed rule is to have any value in
18 providing a reasonable balance in making a used and useful adjustment for
19 developer created utilities. As I previously testified, the design standards require
20 capacity that is greater than expected when actual demands are realized -- in order
21 to include a factor of safety or cushion to assure adequate service. The utilities
22 incur costs for facilities based on design capacity not actual use. The proposed rule
23 makes no specific allowance for the portion of capacity that represents the safety
24 factor or cushion. At some point, however, prudence and economies of scale are
25 considerations that must be recognized within the context of the rule. In addition,

1 systems that are complete or fully developed and single well systems must be
2 considered 100% used and useful, otherwise utilities will never be able to achieve
3 the cost of serving their existing customers -- and the used and useful adjustments
4 would no longer provide a balance between the customers and the affiliated real
5 estate developer utility but simply deny an unavoidable cost that was necessary to
6 provide adequate service.

7
8 **Q. Do you agree with Mr. Woodcock's proposed change to paragraph (3)?**

9 A. No. The change is not necessary. This paragraph recognizes that water utilities
10 should have the ability to provide alternative calculations, as part of its burden to
11 justify its proposed rates. Any party to the rate proceeding has the right to address
12 every aspect of the utility's filing.

13
14 **Q. Do you agree with Mr. Woodcock's recommendation to change paragraph (6),**
15 **subparagraph (b) to express firm reliable capacity based on 24 hours instead**
16 **of the 12 hours in the proposed rule?**

17 A. No. The proposed rule, using a 12 hour period, provides a reasonable balance that
18 recognizes typical consumption characteristics in terms of time periods, and
19 recognizes the typical practice of resting wells to allow time for recharge.

20
21 **Q. Do you agree with Mr. Woodcock's proposed revision to the use of a factor of 2**
22 **times the maximum day in order to estimate the peak hour?**

23 A. No. The use of a factor of 2 times the maximum day in order to estimate the peak
24 hour is typically recognized for design as well as cost allocation studies, particularly
25 for predominately residential customers.

1

2 **Q. Do you agree with Mr. Woodcock's recommendation to eliminate paragraphs**
3 **(10) and (11)?**

4 A. No. The proposed rule identifies in paragraphs (10) and (11) common issues that
5 should be considered in every used and useful analysis. If unaccounted for water is
6 part of the proposed default formulas, then it is important that the rule recognize
7 other factors that address unaccounted for issues. Also, the change in flows due to
8 such causes as conservation or number of customers, and other factors, are also
9 common considerations that are important to recognize so that the rule includes
10 flexibility to address issues beyond those included in restrictive formulas.

11

12 **Q. Do you have any other comments?**

13 A. While I have covered specific recommendations of Mr. Woodcock to which I
14 disagree, there are others that I did not directly discuss, because I agree with his
15 recommendations or because if my own recommended revisions to the proposed
16 rule are different from his and there is no need for additional discussion, or because
17 they will not have a significant impact on the proposed rule.

18

19 **Q. Does that conclude your testimony at this time?**

20 A. Yes.

1 BY MR. HOFFMAN:

2 Q Mr. Guastella, have you prepared a summary of your
3 prefiled direct testimony?

4 A Yes.

5 Q Would you please provide your summary at this time.

6 A Yes. First I guess I would like to just really
7 compliment staff on putting together a proposed rule that takes
8 into account a lot of complex calculations that have been dealt
9 with over the years and I think would effectively reduce a lot
10 of issues and costs associated with used and useful
11 considerations in rate cases. I know from personal experience
12 not an easy thing to do, and I think they did a commendable
13 job.

14 Another general item, I would like to just point out
15 that as, as you look at used and useful considerations, really
16 the primary goal of rate setting is to cover the cost of
17 providing service. I guess because I do so much teaching of
18 rate setting I love to go back to the basics, that the rate
19 setting process is covering the cost so that the customers can
20 get the best possible service on a continuous basis, which
21 means you need to serve today's customers today and today's
22 customers tomorrow when customer growth occurs. So the goal of
23 rate setting is to cover the cost of providing service. And
24 used and useful is a rate setting term that fits into the
25 overall goal of establishing the cost of providing service to.

1 the customers. Used and useful itself is a subpart of the rate
2 setting process. And I think it's important to keep that in
3 mind because the overriding goal is to make sure utilities have
4 enough revenues and earnings to attract capital to be able to
5 on a continuous basis provide safe and adequate service to
6 customers for growing systems as well as systems that are fully
7 developed.

8 The costs that utilities incur to provide service to
9 customers are based on engineering design criteria so that when
10 systems are designed as new systems and as they are designed
11 for expansion of the systems, the costs the utilities incur are
12 based on those design criteria. They're not based on used and
13 useful criteria. So when we examine used and useful in
14 general, we should be looking to what causes the utility to
15 incur the costs and do the used and useful calculations provide
16 that utility with the costs that are necessary to provide
17 service to the customers?

18 The systems were not designed based on used and
19 useful demands or capacities. The systems were designed based
20 on engineering requirements to make sure that the customers get
21 safe and adequate service. Used and useful then is a
22 ratemaking term and a ratemaking tool to establish what is an
23 appropriate level of the cost of providing service.

24 I might add that the primary reason used and useful
25 calculations are made in Florida is because of the

1 developer-related systems. So what we want to make sure is
2 that because so many systems are not fully developed, the PSC
3 has correctly over the years established used and useful
4 adjustments in rate proceedings to make sure that the existing
5 customers pay a fair share of the cost of providing service and
6 are not in effect through the rate subsidizing the future cost
7 of providing service.

8 But, nevertheless, the primary goal is what is the
9 cost of providing service to the customers? And if we depart
10 from the engineering criteria, the reason why the utilities
11 incur cost to provide service because of used and useful
12 calculations, then the used and useful calculations are going
13 beyond what they should be going through.

14 With that in mind, in my review of staff's proposal I
15 really only had a small handful of items that I would suggest
16 may focus the rule in on a more proper determination of the
17 cost of providing service.

18 One of the issues I raise is the use of the maximum
19 day. The proposed rule has a maximum day in the test year,
20 wording to the effect that you use a maximum day for the test
21 year. Systems are not designed based on a rate setting test
22 year. Engineers don't know when there's going to be a rate
23 case or a rate setting test year. When they design systems,
24 they design systems to meet the maximum day. And if you look
25 at engineering criteria or DEP criteria, they do not refer to a

1 rate setting test year. They refer to the maximum day.

2 I think the PSC would want the utilities to design
3 the system to meet the demands of the customers on the maximum
4 day, whether that's during the test year or before the test
5 year. Or if it's a projected test year, what the maximum day
6 is going to be for a projected test year. If you don't, you're
7 not giving the utility enough money to meet the demands of the
8 customers that actually occur, whether it's before, during or
9 after the test year. So one of my recommendations is to
10 eliminate the wording that limits the maximum day to the test
11 year. It's not based on the design criteria and, therefore,
12 more importantly, it's not based on the criteria that requires
13 the utility to spend money for a utility system that's designed
14 to serve the customers.

15 The other adjustment I would make is -- oh, I just
16 would note that the maximum day used for design purposes,
17 whether it's designing a new system or whether it's expansion
18 of an existing system to serve more and additional customers
19 and additional demands, engineers always build in what I call a
20 cushion or a factor of safety into the design criteria. I
21 don't know of any instance that I've examined where the goal of
22 the design was to establish exactly what the customers were
23 going to use in actuality once the system is built and the
24 customers are connected. There is always a cushion over and
25 above what's actually going to be used. Otherwise, you're

1 always right at the brink of meeting or not meeting the maximum
2 day demands. So all design criteria and I believe DEP design
3 criteria want the maximum day design to be something greater
4 than what's actually going to be experienced, and I think it's
5 just logical and makes common sense. You want to have a system
6 that after it's built is going to have some additional capacity
7 built into it beyond what the actual demands of the customers
8 turn out to be. And I think that's -- and I know that's the
9 way systems are designed. And I think the used and useful
10 rules do not base the allowance on the design maximum day but
11 on an actual maximum day. To that extent the used and useful
12 rules are conservative.

13 I'm not recommending that you change the used and
14 useful rules, but I am recommending that when I get into a
15 couple of the other areas, we keep that in mind, that there is
16 a level of conservative allowances of cost built into the rules
17 because we're dealing with ratios of actual maximum demands in
18 relation to capacity. And there is a factor of conservatism
19 built into the used and useful rule that's not allowing what
20 the cost to design the system was when it was designed.

21 One of those is unaccounted for water. Unaccounted
22 for water does not change the cost the utility incurred to
23 build and design the system. All systems have unaccounted for
24 water. All systems are designed and engineers anticipate that
25 certainly there's going to be unaccounted for water. I'm not

1 aware of any water system that does not have unaccounted for
2 water. The question of unaccounted for water is, in fact, an
3 economic question. As systems age and the unaccounted for
4 water increases, the issue then becomes if it becomes
5 excessive -- and it's not so significant to me whether staff
6 uses a 10 percent or some other percentage, so the 10 percent I
7 don't argue with. But if anything greater than 10 percent is
8 going to be considered excessive unaccounted for water, then
9 for the rate setting process on the operating expenses
10 adjustments are made for power and chemicals because the
11 unaccounted for water exceeds 10 percent.

12 However, if the Commission finds that the unaccounted
13 for water is excessive, then they should do one of two things.
14 Do an economic test. If the unaccounted for water that's in
15 excess should be reduced, provide the funds to the utility
16 that's cost-effective to reduce the unaccounted for water. If
17 it's not cost-effective to reduce, say, a 12 percent
18 unaccounted for water or a 13 percent unaccounted for water
19 down to 10 percent, then don't make an adjustment. But in
20 either case, the unaccounted for water does not affect the
21 money that the utility had to spend to design the plant. So I
22 think adjusting the used and useful calculation for unaccounted
23 for water percentages violates in my mind the cost principle
24 that the utility had to incur the cost to serve the customers.
25 As systems age and unaccounted for water becomes greater and

1 greater, the cost the utility incurred to make an investment in
2 that plant does not change, does not get reduced and should not
3 be reduced.

4 If you will picture that the entire cost of the plant
5 was borrowed and the utility continues to pay principal and
6 interest on the borrowed money for a plant that was
7 well-designed to meet the needs of the customers but over time,
8 like all water systems, the unaccounted for water increases to
9 the point where it either should or should not be reduced, I
10 think then the Commission should act more directly. If the
11 unaccounted for water should be reduced, direct the company to
12 reduce it and provide the money to do that. If that's not
13 cost-effective, then don't make an adjustment. But I don't
14 think take away -- I don't think it's reasonable to take away
15 an investment the utility made that does not reduce because of
16 unaccounted for water.

17 The other issue I raised was with respect to high
18 service pumps, and this is the last one. As I said, I had
19 really very few disagreements with staff's proposal. And I do
20 agree that the high service pumps could be treated as a
21 separate item. I depart a little bit from what I believe is
22 staff's intent.

23 It's been my experience that most systems, the high
24 service pump cost is a very small part of the total cost of
25 utility plant in service. So I agree with staff that this is a

1 very small item in terms of total cost. I also believe that
2 most systems -- and I make a distinction between wells that
3 service high service pumps compared with systems that have
4 separate high service pumps apart from the wells. I think if
5 you have high service pumps in the context of this rule, you're
6 talking about pumping facilities that are not source of supply
7 facilities. You're talking about the wells, and the rules
8 provide for used and useful calculation for the sources of
9 supply of the wells.

10 A separate issue, therefore, is high service pumps
11 where the high service pumps are separate and distinct from the
12 well pumps. Those high service pumps don't happen that often
13 in most small systems. I was involved in the Aqua Florida
14 cases, and out of the 56 utilities, only 14 of them had
15 separate high service pumps. And of those I treated them all
16 as 100 percent used and useful for a number of reasons which I
17 don't need to get into here. But I think staff is correct, the
18 high service pumps are a very small part of the costs. I don't
19 think there's a separate rule that's necessary. And I do think
20 it's a complex item to include in a formula for determining
21 high service pumps.

22 CHAIRMAN CARTER: Thank you very kindly.

23 MR. HOFFMAN: Does that conclude your summary,
24 Mr. Guastella?

25 THE WITNESS: It does.

1 MR. HOFFMAN: And Aqua would tender Mr. Guastella for
2 cross-examination.

3 CHAIRMAN CARTER: Mr. Reilly, you're recognized.

4 CROSS EXAMINATION

5 BY MR. REILLY:

6 Q Does unaccounted for water, Mr. Guastella, does it
7 benefit customers?

8 A I'm sorry. Does it what?

9 Q Does unaccounted for water benefit customers?

10 A No.

11 Q Okay. Do customers have any control over unaccounted
12 for water?

13 A No.

14 Q What regulatory body, changing subjects, governs fire
15 flow requirements for water systems?

16 A I'm not aware of any regulatory body in terms of a
17 utility regulatory body. The, the fire flow requirements are
18 designed based on criteria that the engineers are going to look
19 to, and local government will have criteria. But there are
20 also criteria that engineers would follow that go beyond local
21 government such as ISO and, and other criteria for meeting
22 potential fire demands within any system that's being designed.

23 Q But is it not true that any system that's built must
24 at least meet the fire flow requirement of the respective
25 jurisdiction that they're building the system in?

1 A Yes. And I think you said "at least." And that's
2 really why I have included language that says let's use the
3 most reasonable fire flow requirement. Because the local
4 government may show a minimum fire flow requirement that's not
5 necessarily the fire flow requirement that a system should be
6 designed to meet. And I see that it's just as easy in a rule
7 to say meet the most reasonable fire flow requirement as well
8 as then providing that of local government or a minimum of
9 500 gallons per minute. I think it's important to note that
10 fire flow requirements may very well exceed what the specific
11 language in local government codes may require.

12 Q Does the Florida Department of Environmental
13 Protection have any specific fire flow requirements for water
14 utilities?

15 A I think they, I think they refer to the National Fire
16 Protection Association and various other standards. I don't
17 know if they've promulgated their own.

18 Q But you don't know if FDEP has any requirements for
19 fire flow per se?

20 A That's right.

21 Q Does the ISO, the Insurance Service Organization,
22 issue any permits to construct or operate water utilities?

23 A No, not to my knowledge.

24 Q Is a water utility in violation of the provisions of
25 DEP's rules if it does not follow ISO standards?

1 A If a water utility is designed and does not meet a
2 fire flow requirement that's appropriate based on the standards
3 that ISO has promulgated, then I think it could be in
4 violation. I think DEP requires utilities to meet a required
5 fire flow and an appropriate fire flow. And if it does not do
6 that, I think it could very well be contrary to standards that
7 ISO has developed.

8 Q But you're not aware of any specific provision of
9 FDEP rules that requires the following of ISO standards?

10 A It doesn't specifically state ISO. But if ISO
11 standards are not met and the utility is not capable of
12 providing the needed fire flow requirement, then that's a
13 violation of a fire flow requirement that the utility should be
14 designed to meet.

15 Q You're recommending a fire flow allowance based upon
16 NBFU, the National Board of Fire Underwriters, and ISO, the
17 Insurance Service Organization, which provides fire flow for
18 multiple hydrants need to meet fire flow demands at every
19 location throughout the system and to meet coincidental,
20 coincident fires; is that correct?

21 A Only if the systems, only if you analyze the systems
22 where such considerations are needed. I'm not saying that
23 every system should have a fire flow requirement for multiple
24 or coincidental fires, but I certainly think every system
25 should be analyzed based on the construction of the buildings

1 that are going to require fire protection. And if the formula
2 for fire flows show that buildings of sufficient square footage
3 and fire requirements require something greater than the
4 minimum in a local government code, that that system should be
5 designed to meet the greater level, whether it's 1,000 gallons
6 per minute, 2,000, 3,000 or 4,000 gallons per minute. At some
7 point you do reach a judgment as to whether or not a large
8 system would have to have the capability of meeting
9 coincidental fire demands, and at that point you would take
10 also into account the potential of multiple fires.

11 Q But I understood your recommendation was that you did
12 not support the, at least the current draft of the proposed
13 rule that said that you would meet either the minimum of the
14 fire flow required by the local government or this default
15 amount, which is two hours at 500 gallons a minute. In lieu
16 thereof you wanted to substitute these requirements and all of
17 these additional --

18 A No, that's not correct.

19 Q Okay.

20 A My testimony says that, insert the words "in addition
21 to meeting local fire flow requirements and the minimum of 500
22 gallons per minute," insert the words "a reasonable fire flow."

23 Q And your definition of reasonable fire flow includes,
24 as I understand it, the need to meet demands at every location
25 throughout the system to meet coincident fires and to provide a

1 fire flow for multiple hydrants; is that correct?

2 A No. I did not provide a definition within the rule.
3 I just said when you take a look at any water system, what fire
4 flow requirements should that water system meet? And if you
5 take a look at a system that has commercial properties or
6 multistory properties, determine the fire flow based on
7 whatever engineering criteria, and the engineering criteria and
8 standards are readily found in ISO publications to meet those
9 fire flow requirements.

10 I don't think it should be excluded from a rule that
11 a reasonable fire flow requirement should not be included as
12 part of a rule for used and useful.

13 Q So you believe any rule that's adopted has to give
14 the utility the opportunity to establish what they think is a
15 reasonable fire flow requirement that exceeds the local
16 governmental requirement or this two hours at 500 gallons per
17 minute?

18 A If it exceeds it. It may not in all cases because
19 many of the local governments refer to standards that are
20 similar to what ISO has. But if there's a minimum standard in
21 local government but they also refer to other standards such as
22 ISO or the National Fire Protection Association, then analyze
23 the system based on how it was designed to meet those fire
24 demands.

25 I think the cost that you give a utility in rates

1 should enable it to meet the fire demands, fire flow
2 requirements that the fires would demand. And if systems are
3 designed on that basis, that's part of what would be presented
4 as part of the used and useful analysis: A fire flow that's
5 actually needed for a particular system.

6 Q Have you recommended this additional fire flow
7 potential allowance in other cases that you've testified in
8 Florida?

9 A I believe I have.

10 Q And what case would that be or cases?

11 A I think in most all of them. I can't remember all of
12 them. There have been a number of cases I've testified in
13 Florida, and the fire flow requirements that I used were based
14 on what I believe the system should have been designed to meet
15 and incurred costs to meet.

16 Q Have any other -- has the Florida Public Service
17 Commission or any other local governing utility board ever
18 accepted your recommendation for any one of these, the meeting
19 the fire flow demands at every location or coincident fires or
20 multiple hydrants? Do you have cases in Florida where that's
21 been accepted?

22 A I don't know if the cases in Florida -- I believe
23 there were. I believe we dealt with this issue maybe in a
24 Deltona case where there was a need for considering storage
25 facilities and multiple fires. I don't know all of the -- I

1 don't recall all of the cases I testified in Florida where I
2 recommended a fire flow requirement where that fire flow
3 requirement was or was not used.

4 Q But you have no --

5 A I just don't remember the data.

6 Q You have no cases today to indicate, that would
7 support this, this additional level of fire flow that you can
8 offer us today, Florida cases that support that, that testimony
9 or that recommendation?

10 A Well, let me put it in a different way. I don't know
11 of any case where the Florida Commission said the fire flow
12 requirement is reasonable but we're going to only use a minimum
13 for local government instead of what's a reasonable fire flow.
14 And I think having a rule that simply says a reasonable fire
15 flow is an appropriate used and useful rule to have.

16 Q Did you testify in a St. Johns County Regulatory
17 Authority case?

18 A For Intercoastal Utilities?

19 Q Intercoastal Utilities.

20 A Yes.

21 Q And that would be Docket Number 04007-0011-001,
22 subject to check?

23 A I don't know the number.

24 Q Well, that would be an '04 case?

25 A That was before St. Johns County, not the Florida

1 Public Service Commission.

2 Q That was before the St. Johns Regulatory Authority?

3 A Yes.

4 Q And my question to you is in that case did not the
5 hearing officer and ultimately the St. Johns County Board of
6 County Commissioners approve in his recommended order -- did
7 not agree with you in your fire flow recommendation?

8 A I believe that's correct. I believe I, I made
9 calculations of what the fire flow requirement would be for the
10 structures for the Intercoastal Utility, and there were
11 structures of private homes that, believe it or not, had square
12 footage of 18,000 square feet, there were commercial buildings
13 that had square footage of greater than that. I calculated a
14 fire flow, I believe, of 3,000 gallons per minute or possibly
15 3,500 gallons per minute. I don't remember which.

16 I think, I think the administrative, the judge that
17 was assigned to that used a 1,500 gallons per minute. And I
18 would hope that the Florida Public Service Commission wouldn't
19 make the same kind of mistake. Because I would think that if
20 you're going to fight fires that require 3,000 gallons per
21 minute, you would want the utility to do that, not allow
22 something that was less.

23 Q But in that case they did not -- the St. Johns County
24 Authority did not accept the fire flow requirement for multiple
25 hydrants meeting coincident fires; is that correct?

1 A I don't believe I asked for recommended multiple fire
2 flows. I believe I recognized that a fire demand should be
3 3,500 gallons per minute.

4 MR. REILLY: No further questions.

5 CHAIRMAN CARTER: Mr. Friedman.

6 MR. FRIEDMAN: Yes. Thank you.

7 CROSS EXAMINATION

8 BY MR. FRIEDMAN:

9 Q Mr. Guastella, do you agree with Mr. Woodcock's
10 belief as espoused in his prefiled testimony that if actual
11 demand is less than design demand, that the risk should be
12 placed on the utility?

13 A No. The utility has a requirement of meeting the
14 demands of the customers and building facilities to be sure to
15 do that. The utilities spend money based on the design
16 criteria that will enable the utility to meet demands on the
17 system, knowing that the actual demands are going to be less
18 than what the design is. And as I indicated in my opening
19 remarks, the costs utilities incur are based on the design of
20 the system and, and rate setting doesn't spread any risk to
21 customers. The utilities have to cover the cost of providing
22 service, and rate setting is a process in which the cost of
23 providing service is the goal. And the cost of providing
24 service is based on the design criteria, not the actual demands
25 on the system.

1 MR. FRIEDMAN: That's all I have.

2 CHAIRMAN CARTER: Commissioners? Mr. Reilly.

3 MR. REILLY: We will let that question -- I think we
4 were checking and it appears that that is a quote out of his
5 rebuttal testimony. It might be more appropriately asked at
6 that time. However, he's asked the question, he's gotten the
7 answer, and I really will let it go at that. But it's my
8 understanding that, that it was actually a question concerning
9 his rebuttal testimony, which, of course, will be more
10 appropriately done at a later time.

11 MR. FRIEDMAN: I'll ask it again later.

12 CHAIRMAN CARTER: Okay. Commissioners?

13 Okay. Staff.

14 MR. JAEGER: I'll be spelling Ms. Gervasi for this
15 one.

16 CHAIRMAN CARTER: You're recognized.

17 CROSS EXAMINATION

18 BY MR. JAEGER:

19 Q Ralph Jaeger for Commission staff. I think
20 Mr. Reilly was all around it, but I'm talking about fire flow
21 first, and he was talking about, you know, multiple meters,
22 multiple fires. And I think it's on page -- could you turn to
23 Page 7, Lines 2 through 4? And it says there, "I would simply
24 change the last phrase to read, 'where fire flow is provided,
25 an appropriate fire flow'" -- you used reasonable but you're

1 actually saying appropriate fire flow?

2 A Yes.

3 Q And for appropriate fire flow are you referring to
4 the Insurance Service Organization and its predecessor, the
5 National Board of Fire Underwriters?

6 A Those are two sources that I think you could, you
7 could apply formulas to determine what the appropriate fire
8 flow is.

9 You could also find it through the, the National Fire
10 Protection Association would also provide formulas for
11 determining appropriate fire flows. So basically what I'm
12 saying is do not limit the rule to a minimum standard. I think
13 an appropriate fire flow is appropriate to use in a rule.

14 Q Well, isn't this rule sort of like a default type
15 rule? I mean, we start out here and doesn't it give adequate
16 where you can provide justification for greater?

17 A Yes. And I believe as a default using an appropriate
18 fire flow is, is a good default.

19 Q Okay. And I believe you talked about the St. Johns
20 County. Has this Commission ever used ISO or NBFU guides and
21 formulas for calculating fire flow requirements?

22 A As I said before, I can't remember all of the fire
23 flows that I've used in the various used and useful
24 calculations that I've made in Florida. But I seem to recall
25 that many of the times what I recommended was accepted and that

1 was my source of determining fire flow requirements. I use, I
2 use the ISO as a standard and its predecessor all over the
3 country, and all over the country I rarely get objections to
4 what those fire flows are. Because when those same standards
5 and formulas are applied to utilities, they come up with a
6 pretty reasonable level of fire flow requirement. So I can't
7 say the Commission has not because if they've accepted any of
8 my proposals, that's what it was based on.

9 Q As a general rule do you know if these NBFU or ISO
10 guides conflict or coincide with the local county government
11 fire requirements?

12 A Well, the local, local government, and I don't know
13 them all, but some of them that I've looked at, they actually
14 refer to those standards or similar standards. So if we're
15 referring in the rule to local government and local government
16 in turn is referring to standards or formulas, then in effect
17 by referring to local government you are asking for a fire flow
18 requirement based on those very standards. You're just going
19 through a more circuitous route doing it through reference to
20 the local government rather than just saying "an appropriate
21 fire flow requirement."

22 Q Well, do most Florida counties have an ordinance or
23 rule on the required fire flow for their particular county?

24 A Well, the ones I've looked at have a minimum or use
25 the National Board of Fire Protection or some ISO standard. So

1 they say to the utilities, build a system to meet ISO standards
2 or National Board of -- National Fire Protection Association
3 standards. So you're really -- the government is telling the
4 utility to use the standards that I'm referring to. And if the
5 utility is using those standards, then the rule says that's
6 fine. I'm simply saying use an appropriate required fire flow.
7 And if that source is the same, is referencing the same
8 standards that the local government is referencing, then fine.
9 I think the real important point is you want the utilities to
10 meet the appropriate fire flow requirement and you want to give
11 them the money to do that.

12 Q Okay. Moving on, the next questions are about
13 unaccounted for water. Could you turn to Page 5 of your
14 testimony?

15 A I have it.

16 Q Okay. On Line 6 through 8 you state, "I do not
17 believe it is appropriate to make adjustments to demands for
18 unaccounted for water because eventually all systems experience
19 increasing levels of unaccounted for water as the systems age."
20 Is that correct?

21 A Yes.

22 Q What responsibility does the utility have to control
23 the amount of unaccounted for water?

24 A Well, they have -- really the entire burden is on the
25 utility to make sure that its unaccounted for water does not

1 grow to the point where it's economical to undertake the
2 studies and repairs to correct the unaccounted for water. I
3 think it's inevitable that all systems, at least it's been my
4 experience that all systems experience unaccounted for water
5 most of the time since the day they were installed. There's
6 always some level of unaccounted for water.

7 And as the systems age different systems are going to
8 experience more and more unaccounted for water. At some point
9 the utility should, and it's their responsibility, should
10 analyze their unaccounted for water and decide whether or not
11 it's worth spending the money, getting rate relief for the
12 money they spend and reducing the unaccounted for water, or the
13 unaccounted for water simply hasn't grown to the point where
14 it's cost-effective to do that.

15 In turn, that information should be provided by the
16 utility to the Commission. And the Commission should then make
17 a decision, do they allow the utility the money to correct the
18 problem or is it not cost-effective at this time, and you wait
19 until it becomes cost-effective? If the utility doesn't live
20 up to that responsibility, then I know staff will take that
21 role as a regulator and tell the utility we find through our
22 examination that it's cost-effective to, to reduce your
23 unaccounted for water, so do so. And what it does is it
24 reduces power and chemicals, basically the variable costs of
25 providing water. There is an added cost to undertake the.

1 studies to reduce the unaccounted for water. But what does not
2 happen is the cost of the assets do not change. And
3 unaccounted for water, and I agree with staff, it's really a
4 very small part of the total water and a very small part of a
5 maximum day demand, if any. So it's just not an appropriate
6 adjustment to make to the cost of the assets, which were the
7 minimum cost that's being allowed to the utility to recover.

8 I think the appropriate regulatory response is if
9 unaccounted for water is causing, one, a problem with
10 conservation or, two, the cost for variable costs for power and
11 chemicals should be reduced because it's more cost-effective to
12 do that, then I think the Commission and the staff should
13 essentially take the bull by the horns and say fix it because
14 it's cost-effective to do it or don't fix it. But don't reduce
15 an investment that had to be made in order to provide service
16 to the customers. So I just don't think it belongs in a used
17 and useful calculation for the cost of utility plant
18 facilities.

19 Q I think staff in this rule is recommending a
20 10 percent default. What happens if unaccounted for water
21 approaches, say, 30 percent, would you still say don't reduce
22 the --

23 A I think my answer would be the same. I think then if
24 it's cost-effective to spend the money to reduce the 30 percent
25 down to 10, then include the cost in the rates, have the.

1 utility reduce the 30 percent down to 10, and the cost of the
2 utility system is not going to -- the cost of the assets
3 themselves, the physical plant is not going to change. But you
4 then solve the problem of unaccounted for water directly and
5 that's my testimony. Solve it directly by saying it's too
6 high, reduce it, and here's the money to reduce it, and then
7 make whatever adjustments during the test year for ratemaking
8 purposes to power and chemicals. But since you're going to
9 reduce it down to the level it should be at, there's no need to
10 make and it's improper to make an adjustment to the cost of the
11 assets which really did not change because of unaccounted for
12 water.

13 CHAIRMAN CARTER: Mr. Jaeger, could you hang on for
14 one second, please?

15 Commissioner McMurrin, you're recognized.

16 COMMISSIONER McMURRIAN: Thank you, Chairman.

17 Mr. Guastella, following up on this line of
18 questioning about your comment about taking the bull by the
19 horns if it's, if it's cost-effective anyway and basically
20 having the Commission tell the utility to do it if it's
21 cost-effective, I guess, I guess this gets into philosophy a
22 little bit. But do you really think the Commission needs to
23 direct the utility to do it if it's the most cost-effective
24 approach anyway or should the utility be taking the bull by the
25 horns itself and do it and then come to the Commission and say

1 we felt like this was the most cost-effective way to do it and
2 now we seek recovery because that was the most appropriate way
3 to do it?

4 THE WITNESS: I agree with you 100 percent. I think
5 the utility should take the bull by the horns and monitor its
6 lost and unaccounted for water. Obviously you have some
7 utilities and they're small utilities and they're managed to
8 the extent of what a small utility has in terms of staff and
9 engineering staff, and many of them don't have engineering
10 staff. So I think, you know, the reality is the larger
11 utilities you have that have staff and engineering staff, they
12 monitor these things better than the smaller utilities that do
13 not have in-house staff. And they don't see without separate
14 studies the cost for power and chemicals being so significant
15 because of such factors as unaccounted for water. And it's a
16 tough issue because sometimes solving the unaccounted for water
17 problem is so much more costly than just accepting power and
18 chemical costs that it may very well be that it's not
19 cost-effective to do that. But I think all responsibility
20 first lies with the utilities. And then the utilities are
21 regulated by Commissions because if they don't live up to that
22 responsibility, then the second layer of protection for the
23 customers is the PSC, the regulatory agency. You know, it's a
24 costing and ratemaking issue that if the utility doesn't do
25 what it should be doing, then the, the Commission can.

1 But I don't think the used and useful and the cost of
2 the assets is really affected by the decision whether it's at
3 the utility level for unaccounted for water or at the PSC level
4 for unaccounted for water. In both cases it has to do with
5 reducing costs for one of two purposes: Conservation, which
6 may override any cost principles, or the cost-benefit analysis
7 that says power and chemicals are growing to the point where
8 it's getting so costly to deal with unaccounted for water that
9 let's spend the money to correct the problem. In neither case
10 did the cost of the assets change because they were designed
11 based on design criteria that's greater than what actual
12 demands on the system are, and I think the unaccounted for
13 adjustment is not an appropriate adjustment in the used and
14 useful calculation.

15 COMMISSIONER McMURRIAN: I have one follow-up,
16 Chairman. Thank you.

17 Mr. Guastella, do you see the proposed rule as an
18 incentive, and maybe I should say it's more, perhaps more of a
19 stick incentive than a carrot incentive, but for the utility
20 to, you know, take the right approach with respect to the
21 excessive unaccounted for water?

22 THE WITNESS: I think the incentive is when the
23 Commission makes an adjustment for power and chemicals, and I
24 think, you know, the Commission then is telling the company
25 we're not allowing you these operating expenses because if you

1 corrected the problem, you wouldn't have these operating
2 expenses. And I'm assuming, however, that the staff of the
3 Commission and the Commission may at some point recognize that
4 it's better to have some extra chemicals and power costs than
5 to spend so much money to correct a problem that sometimes is
6 very difficult to locate, detect and then repair a distribution
7 system, for example.

8 So it's, it's a, it's a difficult problem to solve,
9 it's a hard problem to make a judgment on on a cost-benefit
10 analysis, but I don't think the message comes through used and
11 useful. I think the Commission's measure should be design your
12 system to serve the customers. And then if you have a problem
13 like unaccounted for water, to me it's the same kind of problem
14 where you're incurring expenses we don't want the customers to
15 pay for but you're not incurring a cost of plant that you don't
16 want the customers to pay for. The cost of the plant isn't
17 affected by the unaccounted for water. So give the message to
18 the utilities that the costs that affect the customers,
19 variable costs for power and chemicals, is what we're going to
20 be concerned with. We're not going to take away a cost of
21 plant that was necessary for you to serve the customers. It's
22 just not the appropriate place to make that adjustment.

23 CHAIRMAN CARTER: Thank you.

24 Commissioner Skop.

25 COMMISSIONER SKOP: Thank you, Mr. Chair. Just a

1 follow-up to Commissioner McMurrian's and Mr. Jaeger's
2 question.

3 With respect to the staff proposed limitation for
4 unaccounted for water, doesn't that serve somewhat as a
5 deterrent function to the extent that it would preclude
6 complacency in not fixing small problems before they grow into
7 bigger ones? I mean, if you could chase down smaller leaks
8 just as part of normal operation and maintenance. Because I
9 think that Mr. Jaeger's question goes to the heart of probably
10 staff's concern. If we allow that to go unchecked, at what
11 point, you know, will the small problems not get fixed before
12 they perhaps grow into larger problems, which I think you
13 stated that the regulators should provide the cost benefit for
14 fixing.

15 THE WITNESS: Well, I guess, you know, having been a
16 regulator, I'm trying to put myself in your shoes. And if I
17 put myself in the shoes of a regulator again, I'm conflicted by
18 the fact that you would deny the utility some money because you
19 want to send them the message to fix leaks. But if they said
20 it's going to cost more money to fix the leak than the costs
21 we're incurring for power and chemicals, you wouldn't direct
22 them to fix the leak. See, I'd rather as a regulator say
23 that's a problem that's worth fixing so fix it. I don't think
24 it's sending a message if you say we're going to penalize you
25 for having lost and unaccounted for water, but it's not such a

1 big lost and unaccounted for, so we're not going to tell you to
2 fix the problem. And I think that's the problem when you're
3 mixing what should be used and useful for assets and what
4 should be a decision for operating expenses.

5 Unaccounted for water is really an operating expense
6 problem. And if you're not going to tell the utility to fix
7 the operating expense problem because you don't think it's
8 worth it, I don't see how you can at the same time say but
9 we're going to send you a signal that we're going to penalize
10 you for an operating expense problem that we're not going to
11 tell you to fix because it's not worth fixing. You've got a
12 conflict there. And I think, I think you're sending the wrong
13 message to the utility. We're going to make, we're going to
14 penalize you for something we wouldn't direct you to fix
15 because we don't think it's worth fixing. So let's leave the
16 problem alone, don't fix it, but we're going to take some money
17 away from you as an incentive to fix it.

18 I don't know if you see the same conflict I see, but
19 that's the conflict I see. You're penalizing for something
20 that you wouldn't direct them to fix because you don't think
21 it's worth fixing, and I think that's why this doesn't belong
22 in the used and useful calculation for assets.

23 COMMISSIONER SKOP: Thank you for that alternate
24 viewpoint and perspective. I appreciate that.

25 THE WITNESS: Thank you.

1 CHAIRMAN CARTER: Commissioners, any further?

2 Mr. Jaeger, you're recognized.

3 BY MR. JAEGER:

4 Q I had just one last question on this line of
5 questioning. Say you're at maximum capacity and you've got
6 40 percent unaccounted for water and it's still a growing
7 utility. Now if they were not doing, if they didn't have the
8 excessive unaccounted for water, if they didn't have such a
9 high amount, they wouldn't have to buy new plant. So that
10 investment, they would have to put in a new plant, would that
11 change your testimony here today when it's already at maximum
12 and it's a high percentage of unaccounted for water?

13 A You know, in the real world I don't think that would
14 happen because if they got to be close to the maximum and they
15 had growth to go, DEP won't let them get there. Because if
16 they're reaching 75 percent of their capacity, DEP is going to
17 tell them start reporting so that you start expanding the
18 capacity. And then as your demands start to exceed the
19 75 percent, you're already planning for the expansion of the
20 system and DEP requires you to do that.

21 So the system really should never get from an
22 engineering perspective to be 40 percent if it's already at
23 demand. First of all, it should never get to demand. If
24 they're growing and the demand is going to be greater than what
25 they're reaching, they'll never get there because DEP won't let

1 their system exceed 75 percent of the maximum day requirement
2 that's anticipated over the next five to ten years. So your
3 hypothetical really should never and could never happen in a
4 reasonable world of utilities trying to provide service and DEP
5 monitoring what the demands on the system are and what the
6 capacities of the system are. So you're asking me for an
7 extreme that really should never happen.

8 Q Going to the next line of questioning, the maximum
9 day demand versus the maximum five-day average, could you turn
10 to Page 4, Lines 17 through 19?

11 A Yes, I have it.

12 Q You say, "I recommend eliminating the provision to
13 use a maximum five-day average, and instead use the next
14 maximum day demand that had no unusual occurrence." Would that
15 be true no matter how many unusual occurrences you had? Say
16 you had four or five days unusual occurrences. You would just
17 keep going down until you hit the first maximum day without an
18 unusual occurrence?

19 A Yes. I'd go find the maximum day demand on the
20 system. And, incidentally, whether it's during or prior to or
21 after the test year, I'd go find the maximum day demand on the
22 system because, number one, it's an actual demand which is
23 conservative in lieu of the design demand, but certainly every
24 engineering criteria, DEP says we want the maximum day, we
25 don't want an average. We want you to exclude from the maximum

1 day any unusual occurrence. So find the maximum day that
2 didn't have something unusual and use it.

3 Q To your knowledge has the Commission ever used the
4 next maximum day after throwing out one or more days with an
5 unusual occurrence?

6 A I don't know.

7 Q Could you turn to Page 8, please. On Page 8 of your
8 testimony, Lines 11 through 14, you state, "Typically, high
9 service pumps connect to a common transmission main, and when
10 two or more pumps are operated at the same time, they pump
11 against pressure, resulting in flow rates that are less than
12 their respective rated capacity." Is that correct?

13 A Yes.

14 Q Can you give us an example of a PSC-regulated water
15 system or another system that has that situation?

16 A The one I can recall that I assume, at least it was
17 before the PSC was Marco Island. Marco Island had raw water
18 pumps, high service pumps that brought raw water down to the
19 treatment plant. The high service pumps and the raw water
20 supply were on the mainland pumping the water to a treatment
21 plant that was on Marco Island. And those pumps had rated
22 capacities individually, but when they were operated together
23 the capacity to deliver the water to the system was much less.

24 I believe the Commission accepted that the effective
25 capacity of the pumps running together was the capacity to use

1 in the used and useful analysis. That's one of them I can
2 remember. You know, I don't know if I can remember others off
3 the top of my head, but I know there have been others as well.

4 Q When two or more high service pumps run
5 simultaneously how difficult is it to calculate the percentage
6 of reduction?

7 A It needs to be calculated. And maybe what you need
8 to do is flow the pumps together to see what's happening.
9 Because I think if you have two pumps, and let's assume they've
10 got a rated capacity individually of 1,000 gallons per minute
11 but when you run them together it's 900 gallons per minute
12 because they're pumping against the head, the rated capacity,
13 it's been my experience in the cases where I've had multiple
14 high service pumps that the rated capacity is on an individual
15 basis. And you would then use the lower capacity system if
16 they were operated together. And if you had three 1,000 gallon
17 per minute pumps and they were operated together, then the
18 demand on the system might go from 900 each down to 800 each.

19 So I don't think the pumps are rated based on what is
20 the range of flow when one, two or three pumps are operated
21 individually? I think what happens is you can only look at the
22 rated capacity of each pump and then know that it's going to be
23 something less if two are operated and something even less if
24 three are operated together. So it becomes a bit of a complex
25 problem. One of the reasons in addition to it's rare and in

1 addition to it's a very minor cost in relation to total, that
2 I'd agree that the high service pumps shouldn't be pulled out
3 and treated as a separate piece of the rule.

4 Q Are you familiar with jockey pumps?

5 A Tell me about jockey pumps.

6 Q I'm just asking are you familiar with them?

7 A You mean where they'll alternate the use of various
8 pumps, high service pumps?

9 Q Can you describe what you consider a jockey pump, see
10 if we're --

11 A Well, to me that would be where you have pumps that
12 might be used where they're mobile, you could apply them at
13 different locations, or if you have alternate uses of, of pumps
14 that are available at the plant itself.

15 Q But they're usually smaller and maybe more mobile?

16 A Yes.

17 Q And can they pump against the pressure of the larger
18 high service pumps?

19 A It depends on the configuration of the piping.

20 Q Would you include the jockey pumps in the used and
21 useful calculation?

22 A I'd have to take a look at all the pumps and see how
23 and when they're used. I couldn't tell you off the top of my
24 head. You'd have to consider all that was available. But if
25 they're for emergency purposes, I would probably treat it as

1 100 percent used and useful.

2 Q Would you consider one high service pump 100 percent
3 used and useful?

4 A Yes.

5 MR. JAEGER: That's all the questions staff has.

6 CHAIRMAN CARTER: Commissioners? Commissioner
7 Argenziano.

8 COMMISSIONER ARGENZIANO: Yes. Just a couple of
9 different questions, and I guess maybe for clarification you
10 might be able to help me because to me the requirement for fire
11 flow, I'm going back to fire flow, is the rate of flow
12 theoretically needed to, I guess, successfully combat a major
13 fire at a specific area and that's the way I would --

14 THE WITNESS: Correct. Correct.

15 COMMISSIONER ARGENZIANO: Okay. So aren't there --
16 or isn't there a fire suppression rating schedule that everyone
17 would use?

18 THE WITNESS: Well, the rating schedules, I mean, go
19 back to 1889 by the National Board of Fire Underwriters and
20 they've been updated in 1922, 1930, 1940, '54, '56, '71.

21 COMMISSIONER ARGENZIANO: '80?

22 THE WITNESS: 1889 forward.

23 COMMISSIONER ARGENZIANO: No. No. No. No. Has it
24 been updated --

25 THE WITNESS: Updated through 'til today.

1 COMMISSIONER ARGENZIANO: Okay.

2 THE WITNESS: So today you have the ISO and you have
3 the National Fire Protection Association, all have various fire
4 supression ratings where they actually measure the square
5 footage of the building, the opening, the type of construction
6 material and they go through a very complex analysis of each
7 type of construction size, materials used, openings, what would
8 cause a fire to spread more or less rapidly, and then they also
9 have fire flow requirements that use the classification of the
10 type of construction and different coefficients for these
11 different supression ratings for each building. And then they
12 determine from those calculations what is the fire flow
13 required. And that's an integral part of providing fire
14 protection service. I mean, providing the water is one part,
15 but what type of structure are you, are you dealing with? And
16 that's what I think many of the local governments would refer
17 to, but many local governments may or may not. I don't know
18 all of the local governments' requirements.

19 And simply what I'm saying is when that kind of
20 analysis is done, and it's been done now for over 100 years,
21 use what's the most appropriate fire flow requirement based on
22 those analyses that have been performed for thousands upon
23 thousands of community water systems around the country. Back
24 in 1980 or '56 there were 25,000 community systems that were
25 analyzed. Now I would guess it's 50,000. Why not utilize that

1 kind of information that tells an engineer and a utility this
2 is the most appropriate fire flow requirement you have for the
3 type of construction that you have that you're serving with
4 your water system. Use the most appropriate.

5 I think essentially that's what local government, if
6 they're doing it the way I think they should be doing it and
7 probably are, that's what they're referring to. So rather than
8 just refer to local government, I think including words that
9 say "the most appropriate fire flow" directs the engineer and
10 the utility to the basis for which the utility had incurred
11 costs to meet the fire requirement at that specific area.

12 COMMISSIONER ARGENZIANO: And just one other
13 question, and I guess I want to see if you agree with this.
14 Our other witness before mentioned that the high service pumps
15 is really just a term, which I kind of tend to agree with
16 because -- and I want to see if you do because I guess if you
17 don't have a separate high service pump, your regular well pump
18 has an additional capacity that then would be the high service
19 pump. Do you agree with that?

20 THE WITNESS: I agree with Mr. Woodcock's concept
21 that if you don't have separate high service pumps and you only
22 have wells, those wells are meeting the same demands that a
23 high service pump would be meeting. But the used and useful
24 rules proposed by staff specifically deal with wells and source
25 of supply. The term "high service pump" then in the rule was

1 treated as a separate item. So to me the rule is reading
2 you've got provisions in the rule for those systems that have
3 wells and no high service pumps. If you have a system that has
4 both the wells and then storage facilities and then the high
5 service pumps, then those high service pumps are separate items
6 that are asked to be separated out from the rule. And I don't
7 think those, that separation is necessary. By not including a
8 separate rule for high service pumps you're not eliminating the
9 rule for water systems that have wells that effectively serve
10 the same purpose as a high service pump would.

11 COMMISSIONER ARGENZIANO: Thank you.

12 CHAIRMAN CARTER: Thank you. Commissioners?

13 Mr. Hoffman.

14 MR. HOFFMAN: Thank you, Mr. Chairman. Just a few on
15 redirect.

16 REDIRECT EXAMINATION

17 BY MR. HOFFMAN:

18 Q Mr. Guastella, Mr. Jaeger with the Commission staff
19 asked you a question when you guys were talking about
20 unaccounted for water with an example, I think, of 40 percent
21 unaccounted for water. I think your testimony essentially was
22 that that might be an unrealistic example and you referred to a
23 75 percent DEP requirement. Do you recall that exchange with
24 Mr. Jaeger?

25 A Yes.

1 Q Okay. The 75 percent DEP requirement, was that a
2 reference to DEP Rule 62-555.348 which addresses planning for
3 expansion of public water systems, source treatment or
4 treatment facilities?

5 A Yes. I believe that's the, that's the rule.

6 Q Okay. Are you familiar with that rule?

7 A I am.

8 Q What does that rule address?

9 A That rule directs any water utility that if their
10 maximum day demands on the system plus fire flow requirements,
11 if there's a fire flow provision, if that maximum is, reaches
12 75 percent, if the capacity reaches 75 percent of what that
13 maximum demand is anticipated for, the utility has to start
14 reporting to DEP on, within, I believe, six months. If the
15 report to DEP says that they're going to meet that within ten
16 years, then you have to report again in five years. If the
17 report shows that the maximum demand is going to be within five
18 years, then you have to report annually to DEP. And if it's
19 less than five, five years, at some point you have to start
20 providing DEP with actual plans and specifications for
21 constructing expansions of the plant based on the maximum day
22 plus fire demands.

23 MR. HOFFMAN: Thank you, Mr. Guastella.

24 That's all I have, Mr. Chairman.

25 CHAIRMAN CARTER: Okay. Let's deal with the

1 exhibits.

2 MR. HOFFMAN: Aqua would move Exhibits 4 through 7.

3 CHAIRMAN CARTER: Any objections?

4 MR. FRIEDMAN: No objection.

5 MR. REILLY: No objection.

6 MR. JAEGER: No objection.

7 CHAIRMAN CARTER: Okay. So let's show moving into
8 evidence Exhibits 4, 5, 6 and 7.

9 (Exhibits 4, 5, 6 and 7 admitted into evidence.)

10 Commissioners, I'm thinking about that list that you
11 had and I think lunch was on that list.

12 Commissioner Argenziano.

13 COMMISSIONER ARGENZIANO: Could I ask, in reference
14 to the rule that was just cited, could I ask staff to find out
15 if that's currently being amended by DEP?

16 MS. GERVASI: We can certainly find that out.

17 COMMISSIONER ARGENZIANO: Thank you.

18 MS. GERVASI: Could you repeat the rule number for
19 us, please, Mr. Hoffman? That will help us.

20 MR. HOFFMAN: It's Rule 62-555.348.

21 MS. GERVASI: Thank you.

22 CHAIRMAN CARTER: Commissioners, I'm thinking in lieu
23 of that we might want to give maybe an extra 15 minutes for
24 staff to bird-dog that. I'm looking -- believe it or not, I've
25 actually set my clock to the ones on the wall. So let's look

1 at -- I'm looking at 2:20; is that right? Staff, does that
2 give you ample time to get the information?

3 MS. GERVASI: Yes, sir.

4 CHAIRMAN CARTER: Okay. Let's reconvene at right
5 around 2:20. We are on recess.

6 (Recess taken.)

7 (Transcript continues in sequence with Volume 2.)

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