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**BEFORE THE FLORIDA  
PUBLIC SERVICE COMMISSION  
DOCKET NOS. 960545-WS**

**POST-HEARING MEMORANDUM  
FILED ON BEHALF OF  
ALOHA UTILITIES, INC.**

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**POST-HEARING MEMORANDUM  
FILED ON BEHALF OF ALOHA UTILITIES, INC.**

Statement of Issues and Positions

**ISSUE 1: Is the quality of service provided by Aloha satisfactory?**

Aloha:           \*Yes. The quality of Aloha's product, the operations, and conditions of Aloha's plant and facilities, and attempts by Aloha to address customer satisfaction should all be found to be satisfactory based upon the great weight of evidence presented at hearing.\*

**ISSUE 2: What action, if any, should the Commission require Aloha to take to improve the quality of service?**

Aloha:           \*The Commission should make a determination that no further action is necessary. In the alternative, the Commission should order Aloha to make improvements in full recognition that Aloha's water meets all regulatory standards. If improvements are required, it should also authorize the appropriate rate increase to cover such costs.\*

**INTRODUCTION AND BACKGROUND**

On March 29-30 and April 25, 2000, Commissioners Susan Clark, Lila Jaber and E. Leon Jacobs heard testimony and received exhibits in the continuation of the investigation of Aloha Utilities, Inc. ("Aloha") for the quality of water service provided to its customers in its Seven Springs system in Pasco County, Florida, in Docket No. 960545-WS. This docket was opened as a result of a customer petition filed shortly after an application for wastewater rate increase and Reuse Project Plan was submitted to the Florida Public Service Commission. Those cases were subsequently consolidated for hearing.

The Reuse Project Plan was ultimately approved and Order No. PSC-97-0280-FOF-WS was issued establishing final wastewater rates in that proceeding. In that same Order, the Commission found Aloha's quality of water service to be unsatisfactory based upon a review of three factors: (1) the quality of utility product; (2) the operational condition of Aloha's plant and facilities;

and (3) attempts to address customer satisfaction. While the Order is somewhat vague as to the basis upon which the Commission determined that Aloha's quality of service was unsatisfactory, the unequivocal evidence from all regulatory officials and persons with technical knowledge of water quality and operation standards agreed that Aloha was meeting all DEP, EPA and other standards for the quality of the water delivered to the customers and for the operation of its plants and facilities. As such, it appears that the primary basis for the Commission's ultimate conclusion that Aloha's quality of service was unsatisfactory was based upon Aloha's attempts to address customer satisfaction.

As part of the Final Order issued in 1997, the Commission directed Aloha to evaluate treatment alternatives for the removal of hydrogen sulfide from its raw water. On June 12, 1997, Aloha's consulting engineer, Mr. David Porter, submitted a detailed analysis of the alternatives available for hydrogen sulfide removal which concluded that the only reasonable method for removal of hydrogen sulfide, while also preparing Aloha to meet anticipated changes in DEP and EPA standards in the near future, was to construct regional treatment facilities based on the packed tower aeration process. By Order No. 97-1512-FOF-WS, after a review of Aloha's detailed engineering report, the PSC ordered that Aloha survey its Seven Springs' customers to determine the extent of their water quality concerns and whether those customers were willing to pay for new treatment facilities which are not required by any current EPA or DEP rule. Of the approximately 8,600 surveys distributed, the Commission received 3,700 responses. (See, e.g. Composite Exhibit 15). As clearly stated on the face of the survey, in bold type, those customers who were satisfied with the quality of water service provided by Aloha were told that they need not respond. (TR. 747). While many of the responding customers lodged complaints about water quality, only a handful stated that they were willing to pay higher rates to address those concerns.

In addition, two of the commissioners assigned to the case conducted a site survey of the customers reporting the worst copper sulfide problems on July 17, 1998. Just prior to that visit, Aloha had written to the Commission offering to construct the packed tower aeration facilities as recommended by the June 17, 1997 engineering report if the Commission would approve such construction as prudent.<sup>1</sup>

After review of this additional information, the Commission issued Order No. PSC-99-0061-FOF-WS on January 7, 1999, proposing to take no further action in regard to the quality of water service provided by Aloha. In that Order, the Commission also declined to order Aloha to move forward with the construction of the packed tower aeration facilities as offered by Aloha. That Order was protested by customers Mike Fasano, Edward O. Wood and James Goldberg. This hearing followed.

By Order No. PSC-99-1233-PCO-WS, issued June 22, 1999, the Commission stated that:

[I]n answering whether there is still a quality of service problem, we find that the burden of going forward with the evidence has clearly been shifted, if it was not already on the Utility, to the Utility. Dependent upon how the Utility chooses to present its case, it would then be incumbent on the other parties to the extent they disagree to come forward and present their case.

In response to this Order, Aloha presented the expert testimony of Mr. Dave Porter, P.E., Aloha's consulting engineer, and Aloha's president, Mr. Stephen Watford. Mr. Porter addressed in detail the cause of the discolored water and odor problems reported as a primary concern of the customers who complained, not only at the prior hearings in 1996, but at the more recent hearings in March and April of 2000. Mr. Porter submitted his engineering study performed

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<sup>1</sup>See that portion of Composite Exhibit 15 comprising a copy of a letter from Aloha's attorney to the Commission noting Aloha's willingness to move forward with those improvements. (TR. 739-40).

in 1997 (Exhibit 12), wherein he analyzed the methods for removal of hydrogen sulfide (the primary raw water constituent of concern), the removal of which would make a significant improvement in the areas of customer concern. Mr. Porter also reported on the success of the corrosion control program which Aloha had initiated at the beginning of 1996, and the optimization of that program in mid-1999. He concluded that: (a) Aloha meets all FDEP and EPA standards, and has for many years; (b) that Aloha complies with all EPA and FDEP water quality regulations and, specifically, the Lead and Copper Rule requirements (TR. 487); (c) that the water quality changes that occur within the customers' homes are the primary, if not exclusive, cause of corrosion in customers' copper piping; and (d) that the results of the study prepared by him to implement a regional centralized packed tower aeration treatment facility is the only viable alternative available to Aloha to further address concerns noted by the customers.

Mr. Watford also provided expert testimony on these issues, reaching the same conclusions as Mr. Porter about the causes of the primary concerns expressed by the customers of odor and discolored water. He also testified about the solutions lying within the customers' homes and beyond Aloha's point of delivery, as well as Aloha's compliance with all regulatory requirements for water quality. The testimony of DEP witnesses Pete Screnock and Mike LeRoy fully supported the conclusions reached by Mr. Porter and Mr. Watford with regard to Aloha's compliance, the cause of the discoloration and odor concerns of the customers, and the potential solutions that Aloha has offered.

Mr. Watford also testified that Aloha had fully demonstrated in the last hearing that Aloha was then meeting, and continues to meet, all required pressure levels at the extremities of its system and that every pressure test done to date has concluded that to be the case. (TR. 741).

Finally, Mr. Watford testified extensively on Aloha's customer relations and record-

keeping related to customer complaints. He specifically noted that Aloha continues to be in full compliance with the applicable Commission rules related to logging and keeping records of customer complaints and supplied Exhibit SGW-3 (Exhibit 15) to demonstrate that the procedures employed by Aloha are in full compliance with applicable rules and regulations. He noted also the additional steps that Aloha has taken in order to ensure that all customer inquiries and complaints are properly processed and addressed. Many of these additional measures are well beyond any requirement for the utility and relate solely to concerns within the customers' home, beyond Aloha's point of delivery and the extent of its legal responsibility. The common sense notion that every utility can only control and therefore shoulder the responsibility for, that portion of its distribution system which lies on the utility side of the meter, is codified in Rule 25-30.231, Fla. Admin. Code, which requires each utility to operate and maintain in a safe, efficient and proper condition all of its facilities and equipment "up to and including the point of delivery into the piping owned by the customer."

Finally, Aloha directed its consulting engineer to visit each and every home of the customers who testified at the Commission's hearing in order to investigate the concerns of those specific individuals. In doing so, he provided not only an analysis to assist the Commission in understanding the nature and cause of the problems which those customers were experiencing, but also provided advice and suggestions to the customers.

The testimony at hearing provided by the witness for Public Counsel not only contained a specious and damaging allegation in the form of a thinly-veiled charge that Aloha had "superchlorinated" its raw and finished water wells in order to "rig" the sampling event which took place on August 4, 1999, it contained numerous other statements and "opinions" which were either revealed to have absolutely no foundation in fact or science or which the witness contradicted, retreated from, or hedged in one way or another. That testimony is discussed at length within the



body of this brief. The evidence in this case conclusively demonstrates that there are no improvements that should be made to Aloha's systems in order to improve the quality of service. Aloha's service is in accordance with all applicable standards, and the sporadic problems with black water as presented by the customers clearly was demonstrated by the great weight of the evidence to be related to changes to Aloha's water which results in copper corrosion and which occurs within the customers homes because of various factors within those homes including, but not limited to, home treatment units.

To the extent the Commission does determine that some actions by Aloha are necessary, the evidence conclusively demonstrates that the actions which should be ordered by the Commission are those proposed in Mr. Porter's exhibit (Exhibit 12). Mr. Bidy's "alternative suggestion," the use of pressure filters, was conclusively revealed by the evidence to be another opinion without any support in fact or in science. Mr. Bidy himself admitted that he didn't know whether his proposed solution was, in fact, a viable solution at all.

As a result of the extensive information supplied by Aloha in this unprecedented five year investigation of water quality, the breadth and length of which is unparalleled in the history of the Commission's regulation of water companies, Aloha has not only demonstrated that it is meeting all water quality standards but also that the water it is providing is of very high quality to the point of delivery. To the extent some customers are experiencing problems within their homes, those are primarily the result of factors occurring within those homes over which Aloha does not, and cannot, have any control over or responsibility for. Aloha has, however, expressed a willingness to move forward with improvements that both Aloha and the DEP representative agree are the most appropriate changes that can be made to address these concerns, even though the water presently meets all applicable standards. Aloha stands ready to make those improvements once authorized as appropriate by the Commission with appropriate mechanisms for rate relief to cover their cost.

Aloha has also fully addressed the issue of customer record-keeping and response to customer complaints and has demonstrated, through the testimony of Mr. Watford which is wholly un rebutted, that it has taken actions above and beyond its legal responsibility in order to try and further address the concerns of the customers and to keep the customers informed about the cause of problems that are occurring within their homes.

Aloha has demonstrated that the quality of the water it is providing to its point of delivery is very high and well above all state and federal regulatory standards. The evidence also clearly demonstrates that Aloha is operating all of its facilities in a very professional and appropriate manner. In addition, Aloha has not only conformed to all of the requirements of the Commission rules with attempts to address customer satisfaction, but Aloha has gone well beyond those requirements in attempting to help its customers to understand the nature of the problems which some customers have experienced within their home systems. In addition, Aloha has undertaken additional internal procedures to enhance its customer complaint monitoring, processing, and resolution above those in place at the beginning of this hearing and at the time of entry of the Commission's Order No. PSC-97-0280-FOF-WS. As such, the Commission must find, based upon the great weight of evidence, that Aloha is providing not only a satisfactory quality of service, but a high quality of service to its customers.

In accordance with Commission practice, Aloha hereby submits a detailed Post-Hearing Memorandum in response to each of the enumerated issues posed in Commission Order No. PSC-00-0585-PHO-WS.

### **ISSUE 1**

#### **Is the quality of service provided by Aloha satisfactory?**

The question of quality of water service provided by Aloha to its customers in its Seven Springs system was raised in the protest filed by Mr. Fasano, Mr. Goldberg, and Mr. Wood.

In addition, forty-six other customers testified about their experiences with quality of water service. Mr. Ted L. Bidy was the only water quality professional presented on behalf of the customers. Aloha presented detailed testimony of Mr. Watford and Mr. Porter on the quality of water service provided to Aloha's customers. To the extent the customers or Mr. Bidy provided any evidence that the provision of water service by Aloha to the point of delivery is less than satisfactory, that evidence was thoroughly rebutted by not only Mr. Watford and Mr. Porter but also by the employees of the FDEP, Mr. Screnock and Mr. LeRoy.

For the purposes of discussion, we have attempted to break the water quality issue into its separate parts as identified in Order No. PSC-97-0280-FOF-WS wherein the Commission specifically delineated the three areas where quality of service must be reviewed: (1) quality of Aloha's product; (2) operational condition of Aloha's plant and facilities; and (3) attempts to address customer satisfaction.

**1. Quality of Aloha's Product**

Aloha's witnesses testified that Aloha is meeting all regulatory standards imposed by the EPA and DEP with regard to water quality at its point of delivery. (TR. 535-6, 744). The DEP witness, Pete Screnock, also presented testimony that Aloha is, and has been, meeting all such standards. (TR 790). There is no contrary evidence on the record.

While it is clear from that evidence that all required standards are being met, Aloha has taken the additional step of proposing additions to its treatment facilities, which will even further treat the water provided by Aloha to its customers in the Seven Springs system, in a detailed Engineering Report (Exhibit 12). Aloha proposed to construct those facilities (if deemed appropriate by the Commission) despite the fact that doing so will be above and beyond anything required by the regulatory agencies and will require a substantial capital outlay by Aloha. (See Exhibit 15, TR. 739-

or supportable evidence.<sup>2</sup> The gravity of this charge, which not surprisingly received play in the media and which was the basis at one point for a specious assertion that the "State's Attorney" should get involved, stands in stark disproportion to the lack of "information" or "facts" which OPC's expert had at his disposal before he publicly leveled the allegation.

When Mr. Biddy, who repeatedly stated he had been in this business for 36 years, physically attended the sampling events of August 4, 1999, he formed the impression that he smelled hydrogen sulfide. (TR. 891). So, in his own words, based on what he actually saw at the sampling event, he was **not** of the opinion at that time that the wells had been superchlorinated. (TR. 891). Mr. Biddy, in fact, only subsequently formed that opinion based on information which (he perceived) was provided to him by Savannah Labs. (TR. 891). Mr. Biddy admitted in cross-examination that his opinion that the raw water at the wells was superchlorinated was **not** based on anything other than the information he received from Savannah Labs. (TR. 892). Not only did Mr. Biddy form the opinion regarding the superchlorination of the raw water well without going through any mental exercises whatsoever about how one would physically superchlorinate raw water wells [pumping at a rate of 250 gpm, 500 gpm, and 1,000 gpm (TR. 894-5)], but in fact he was sadly (at least from the perspective of the target of his spurious charge) mistaken as to what information he believed Savannah Labs had supplied to him on the issue.

Mr. Biddy acknowledged that Savannah Labs has a panel of trained experts to do odor tests who are entrusted to do these odor tests because of their well-calibrated noses. (TR. 895). The odor panel produced a document, Exhibit 21, which had a notation thereon for any detection of chlorine odor in the ten samples received (five for raw water and five for finished water). While

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<sup>2</sup>These statements relate to Mr. Biddy's opinion that Aloha, or "someone," superchlorinated the wells which were the subject of the August 4, 1999 sampling event. Mr. Biddy's testimony pulls no punches in its implication that the party who engaged in the conduct, which would obviously be fraudulent if nothing else, was in fact Aloha. See, e.g., TR. 871-2.

40).

As noted by Mr. Watford, Mr. Porter, and Mr. LeRoy, the only 100% positive and immediate way to resolve the black water issue and the copper corrosion that some customers are experiencing is to replace their copper piping with CPVC (See e.g., TR 809). As noted repeatedly throughout this proceeding and in Late-Filed Exhibit 13, this problem only occurs in those homes that have copper piping. See, e.g. TR. 825.

The Testimony on the Quality of Aloha's Water

The only witness who affirmatively and directly addressed these issues on behalf of any party other than Aloha was Mr. Ted Bidy, an expert for OPC. Mr. Bidy made several statements and drew several conclusions in his testimony which simply melted under the heat of examination and inquiry. Below are several statements made by Mr. Bidy in his Prefiled Testimony (italicized exactly as they appear in the testimony and referenced to the page of the transcript on which they are set forth) with comparisons of those assertions to the actual facts as established at hearing. Also included herein is the expert testimony responsive to those issues provided by Aloha's expert witnesses and the expert witness from the DEP.

- a)        *Q. Mr. Bidy, can you say to a reasonable scientific certainty that ... the raw ... well water was subjected to extraordinary chlorination, such that the testing you had performed for sulfides was affected?*
- A. Yes, I can. That is my professional opinion. (TR. 872)*

Among the plethora of specious assertions and "opinions" rendered by Mr. Bidy, his opinion that the raw well water of Aloha had been "superchlorinated" stands alone as a remarkable testament to the capacity of this "highly-motivated" expert to give an opinion "to a reasonable scientific certainty" even though the "opinion" is not based upon even a single shred of discernible

Exhibit 21 establishes that the odor panel included a notation for chlorine for all of the finished water samples, there was **no** similar notation for any of the raw water samples. (TR. 898). Similarly, the memorandum from Savannah Labs which Mr. Bidy attached to his testimony (Composite Exhibit 20), does not reveal in any way, shape or form that there were any odors of chlorine in **any** of the raw water samples. Additionally, Ms. Kathy Sheffield, the project manager for the Tampa office of Savannah Labs, is the person Mr. Bidy dealt with at Savannah Labs and that he relied upon for the information upon which he subsequently formed his “opinions.” (TR. 896). Ms. Sheffield, under oath at a deposition which was taken at the request of OPC and which Mr. Bidy attended, indicated that the raw water **did not** evidence any chlorine odor and had not been superchlorinated in her opinion. (TR. 900). Additionally, Savannah Labs didn’t do *any test at any time* that found chlorine in any of the raw water samples. (TR. 902). When Ms. Sheffield was asked in her deposition, “Did the raw water evidence any chlorine odor,” she replied, “The raw water samples did not come back with chlorine odor hits.” (TR. 903). This was all completely consistent with the fact that Mr. Bidy indicated he didn’t smell any chlorine during the sampling events of August 4, 1999. (TR. 902).

When Ms. Sheffield was asked if it would surprise her that one of Mr. Bidy’s conclusions was that the raw water had been superchlorinated, she responded, “I think Mr. Bidy was confused.” (TR. 901).

Accepting as a given that to a reasonable and responsible expert witness there is a substantial difference between forming an opinion “to a reasonable scientific certainty” and being “confused,” it is apparent that Mr. Bidy’s aggressive desire to demonize Aloha was so strong that he did not need even a shred of evidence or factual support for a charge which had the potential to severely damage the reputation of Aloha Utilities. The ability of Mr. Bidy to achieve his fixation of rendering the opinion that implied that Aloha had rigged the well tests by superchlorinating the

wells prior to the August 4, 1999 sampling event was apparently unimpeded by the fact that he knew that a) no one ever smelled chlorine at the well-sites, b) no one ever smelled chlorine in the raw water samples, c) no one ever tested the raw water samples for chlorine, and d) Savannah Labs did not believe the water had been superchlorinated. While one might assume that a reasonable expert would need at least some discernible basis for such a critical opinion, in the case of Mr. Biddy that assumption would apparently be false.

Mr. Porter was of the opinion that there was absolutely no evidence submitted by Mr. Biddy to support his contention that the raw water was superchlorinated, and noted that even the lab results from Mr. Biddy's own lab say nothing about the chlorination of raw water. (TR. 1001). Mr. Biddy's conclusion about superchlorination is contrary to all the other evidence over the years and contrary to his own contemporaneous observations. (TR. 1001). Mr. Porter was present at the August 4 sampling event and the raw water did exhibit the odor of hydrogen sulfide, the water in all cases was clear and palatable, Mr. Porter drank finished water from each of the well sites, and found it to be of good quality. (TR. 1002). While at the sampling event on August 4, not one person, lab sampling technician, Commission staff, Mr. Biddy, or the attorney from OPC's office commented that a chlorine odor was detected and several persons were seen drinking or otherwise testing the water. (TR. 1003). Mr. Porter was of the opinion that it was absurd to think that the wells could be superchlorinated (because of the physical requirement for such an act) without anyone noticing. (TR. 1004-5). It wouldn't be possible to superchlorinate the wells the night before if they were being used and Aloha's wells were operating throughout the night, and there is no possible way to superchlorinate the aquifer. (TR. 1005-6). For the wells to have been superchlorinated, and for an expert to visit the wells and not see or smell obvious evidence of this superchlorination, is unthinkable. (TR. 1007). During the same sampling event, Aloha had an independent lab, Short

Environmental Laboratories, take samples within two or three minutes of those taken by Savannah Labs. (TR. 1008). The testing results produced by that lab were totally consistent with what has been reported by Aloha, DEP, and the PSC staff for many years, and the results are totally inconsistent with the testing results produced by Savannah Labs. (TR. 1009). On October 6, 1999, another water sampling and testing round was undertaken by a laboratory for the PSC and by Aloha's laboratory. (TR. 1009). The laboratory testing results from October, 1999 were totally consistent with what had been reported by Aloha, the DEP and PSC staff for many years and were totally inconsistent with the testing results produced by Savannah Labs for the August 4 sampling event. This is true for both the results of the PSC's lab and Aloha's lab regarding the October 6 test. (TR. 1009).<sup>3</sup> All laboratory testing results produced by each independent laboratory were totally consistent with what had been reported by Aloha, DEP, and the PSC staff for many years with the exception of the results from Mr. Bidy's lab which were totally inconsistent with the testing results produced by all other laboratories. (Exhibit 25)(TR. 1010).

Mr. Porter considered Mr. Bidy's data seriously flawed and not trustworthy and was of the opinion that the discrepancy between Mr. Bidy's observations regarding odors he detected at the site and later statements regarding excessive chlorination were totally at odds with each other. (TR. 1010). Careful, thoroughly accurate preparation of the chain of custody documents are of paramount importance and his review of the chain of custody documents prepared by Savannah Labs failed to indicate that the samples for sulfide were properly preserved prior to their shipment to the laboratory for analysis. (TR: 1011). Because of a lack of proper preservation of the samples, Mr. Porter was of the opinion that Savannah Laboratories' data was not valid and should be discarded. (TR. 1011).

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<sup>3</sup>Mr. Bidy was aware of the October 6, 1999 sampling event and was aware that he was invited to participate in the same, but he declined to do so. (TR. 946-7). Mr. Bidy was apparently concerned that if the subsequent testing by Savannah Labs was inconsistent with the testing done after the August 4 sampling event, the results of Savannah Laboratories upon which he "relied" would be impeached.



The reason that sulfide was not found in any of the samples tested by Savannah Labs had nothing to do with superchlorination of the samples, but was due to improper sample preservation by Savannah Labs. (TR. 1012). The presence of chlorine, at 1.4 mg./l as reported by Mr. Bidy in a standing sample only proves that Aloha's water is of high quality and that Aloha's addition of chlorine to oxidize hydrogen sulfide to sulfate at the well sites is highly effective. (TR. 113).

b) *Q. Mr. Bidy, can you say to a reasonable scientific certainty that ... the ... finished well water was subjected to extraordinary chlorination, such that the testing you had performed for sulfides was affected?*

*A. Yes, I can, that is my professional opinion. (TR. 872)*

Mr. Bidy's opinion to a "reasonable scientific certainty" that the **finished** well water of Aloha had been superchlorinated before the August 4, 1999 sampling events is only marginally less specious than his allegation that Aloha had superchlorinated the raw water wells. At least his defamatory assertion that Aloha "or someone else" had superchlorinated the finished well water was at least loosely based in part upon an actual chlorine test of a single finished water sample (albeit an invalid and indefensible test).

Mr. Bidy's allegation of superchlorination flies in the face of his own senses, which indicated to him that he was smelling hydrogen sulfide at the August 4 sampling event. (TR. 891). Mr. Bidy has been in this business 36 years and he has smelled a lot of hydrogen sulfide and a lot of chlorine during those 36 years. (TR. 910). Hydrogen sulfide has a rotten egg smell, and chlorine has a bleachy smell. (TR. 910). Additionally, a memorandum which Mr. Bidy authored to his file, and whose purpose was to document his investigation and impressions during the sampling event, impeaches his own later conclusions. (TR. 908-9). That memorandum (Exhibit 22) documented Mr. Bidy's contemporaneous impressions that at well no. 1, he believed some hydrogen sulfide odor was "obvious" at the raw water tap (TR. 909); that at well no. 6, he detected an "obvious" odor of hydrogen sulfide (TR. 911); that at well no. 3 he detected a hydrogen sulfide odor in the raw water

(TR. 911); and that at well nos. 8 and 9 he detected a strong hydrogen sulfide odor and taste in the finished water (TR. 911). Mr. Bidy acknowledged he did not smell chlorine during the sampling event (TR. 912), and that if the water were superchlorinated, the hydrogen sulfide would have been driven away to sulfate and then to elemental sulfur (TR. 912). If there is no hydrogen sulfide present, it is not possible to smell hydrogen sulfide or to taste hydrogen sulfide. (TR. 912). Mr. Bidy acknowledged in his deposition that there was no way to reconcile his observations at the time of the sampling event with the opinion he later formed and with the well tests performed by Savannah Labs. (TR. 913). Either the tests are wrong or what he perceived at the time of the sampling events regarding taste and odor were wrong. (TR. 913). Mr. Bidy admitted that if the water were superchlorinated, there wouldn't have been any hydrogen sulfide in the water. (TR. 915).

A technician from Savannah Labs, Marty Walker, accompanied Mr. Bidy on the August 4, 1999 sampling event. (TR. 919). Mr. Walker has considerable experience taking these types of water samples (TR. 919), and Mr. Walker took field notes during the sampling event (Exhibit 23)(TR. 920). Mr. Bidy said that he understood from Ms. Sheffield that there was a chlorine odor in three of the ten samples (the finished water from well nos. 1, 3 and 9). (Composite Exhibit 20, TR. 918). However, Mr. Walker's field notes for the finished water from well nos. 1, 3 and 9 (those same wells) contained his contemporaneous impressions of what he saw and sensed during the field test. (Exhibit 23, TR. 920-1). For the finished water on well no. 1, Mr. Walker indicated, "color - none, odor - none, appearance - clear." (TR. 921). It is notable that Mr. Walker has to get right down on top of the water to fill up the sampling bottles. (TR. 921). With regard to the finished water sample at well no. 3, again Mr. Walker's impressions were recorded as "color - none, odor - none, appearance - clear." (TR. 922). With regard to the finished sample from well no. 9, Mr. Walker's impressions were also "color - none, odor - none, appearance - clear." (TR. 922). So the

Savannah Lab employee who attended the sampling event of August 4, 1999 indicated “odor - none” for all three of the samples he took from the very wells Mr. Biddy says he understood from Savannah Labs had a chlorine odor.

In point of fact, of the ten samples that were taken during the sampling event of August 4, 1999, Mr. Biddy only had one sample (eventually) tested for chlorine and, in fact, that sample sat on a counter and had not been properly preserved. (TR. 924). That single sample had also been retained far outside of the accepted holding time (the accepted holding time for chlorine is normally that it needs to be tested *at the time of collection*). (TR. 924). The sample sat on the counter for three weeks. (TR. 924). Ms. Sheffield testified at her deposition that the chlorine test was not something she was comfortable at all doing (TR. 924); that from her perspective of holding time and refrigeration, the test was not a valid test (TR. 925); and she described that data as flawed and stated that it would not be considered “court-defensible” (TR. 925). In fact, Mr. Biddy’s extrapolation that 1.4 mg./l. of chlorine in the sample three weeks after the sample was taken must mean that the chlorine was “much higher” (superchlorinated) at the time of sampling is, as Biddy admitted, speculative. (TR. 928). Not only is it speculative, it flies in the face of Ms. Sheffield’s sworn testimony. She testified that the fact the chlorine was still present three weeks after the fact only would indicate that there was **some** chlorine there when the sample initially came in, but there was **no way** to tell how much chlorine. (TR. 927). She testified there was no way of telling whether or not these samples had a higher chlorine content the day they came in than they did on the day they were tested (three weeks later). (TR. 926). Even Mr. Biddy agreed, in response to a question from Commissioner Jaber, that he would want the Commission to rely on Sheffield’s testing and her lab’s testing rather than something he had said, to the extent those are in conflict. (TR. 928).

So Mr. Biddy rendered his damaging and defamatory opinion that Aloha “or someone

else” had superchlorinated the finished well water in order to destroy the effectiveness of the August 4, 1999 sampling event a) without having smelled any chlorine at the time; b) having actually smelled an element (hydrogen sulfide) which would not be present if the wells had been superchlorinated; c) even though the Savannah Lab technician did not indicate that he smelled any chlorine from those water samples; d) even though Mr. Bidy didn’t originally even ask Savannah Labs to test for chlorine; and e) even though he only had one sample tested for chlorine and his delay in having that one sample tested totally destroyed the validity of the test. Ms. Sheffield told Mr. Bidy right up front that the chlorine test was not done according to the proper protocols. (TR. 928). However, Mr. Bidy’s enthusiasm to render this damaging testimony against Aloha apparently blinded him to the normal facts and bases which a reasonable expert would require before he would make such a defamatory and serious allegation.

Mr. Bidy’s opinion that the finished raw water wells had been superchlorinated prior to the August 4, 1999 sampling event is predicated upon a factual basis which is the expert-opinion equivalent to a house of cards. The testimony at trial, and not insignificantly the testimony from Savannah Labs at a deposition which was taken by OPC itself, caused that house of cards to crumble. Fortunately for Mr. Bidy, his specious charge that the wells had been superchlorinated has been made within the protective cloak of a quasi-judicial litigation (which protects him from liability). Equally unfortunately for Aloha, the damage of these unsupported allegations was, and is, impossible to quantify.

Please see prior references to Mr. Porter’s testimony regarding Mr. Bidy’s opinion on the superchlorination of the raw and finished water prior to the August 4, 1999 sampling event. Mr. Porter was also of the opinion that had the finished water distributed to the customers been superchlorinated the day before the well tests, there would have been a very strong bleach smell at

the customers' homes which there was not and not one complaint from any customer was received on August 4 or 5 concerning bleach-smelling water. (TR. 1014)

- c) *The black water is not being caused by copper sulfide as has been the claim of Aloha Utilities in the past. (TR. 875)*  
*At least at the Coogan residence, the very black water is not due to copper sulfide but from some other unknown chemical combined with copper (TR. 875)*

It is notable that this is the second of two important opinions which Mr. Bidy rendered which seemed to have occurred to him as an afterthought. The first is the opinion he rendered regarding the chlorine content of Aloha's raw and finished water at its well sites during the August 4, 1999 sampling event. In that case he never even bothered to ask Savannah Labs to look into that chlorine content until the sample had sat on the counter so long that the validity of the chlorine test, taken on a single sample, was destroyed. The second opinion which Mr. Bidy never bothered to scientifically validate was his opinion that the black water problem experienced by some of Aloha's customers is not caused by copper sulfide. Despite Mr. Bidy's definitive opinion in this regard, he never even bothered to ask Savannah Labs to test the black residue which he witnessed at a customer's home during the sampling event of August 5, 1999, despite the fact that Savannah Labs could have easily performed the test and thus his opinion on the issue could have had at least some scientific and factual basis.

Despite his full, prior knowledge that this was an issue and his express acknowledgment that Aloha had "claimed" that the black water experienced by some customers was caused by copper sulfide, he never asked Savannah Labs to test the black residue which he found in the water of a customer's home. (TR. 930). Even as to tests he had performed on that water, he never asked Savannah Labs to test for copper sulfide. (TR. 930). Ms. Sheffield stated that if asked to test for copper sulfide, Savannah Labs would have used a different testing method than they did use. (TR. 930). Ms. Sheffield also stated under oath that although Bidy gave her a list of the parameters to

test for, he didn't ask for a test for copper sulfide . (TR. 930). Mr. Bidy, who was in attendance at Ms. Sheffield's deposition, recalled Ms. Sheffield's testimony that Savannah Labs didn't use the testing method they would have used if Mr. Bidy would have requested a test for copper sulfide. (TR. 931). Similarly, Ms. Sheffield said in her deposition that if Mr. Bidy wanted Savannah Labs to test for copper sulfide, he needed to give Savannah Labs different marching orders than what he gave her. (TR. 930). Ms. Sheffield testified under oath that if Savannah Labs had known that Mr. Bidy was looking for acid-insoluble sulfides (the form of sulfide found in copper sulfide ), Savannah Labs would have done a proper test for acid-insoluble sulfides, but that, for whatever reason, that desire was never made known to Savannah Labs. (TR. 931).

Consequently, although Mr. Bidy testified quite a bit about chlorine content in Aloha's waters, he never asked Savannah Labs initially to test for chlorine (TR. 931), and although he testified quite a bit about copper sulfide or the lack thereof, he never asked Savannah Labs to test for copper sulfide in the black residue (TR. 932). In response to a question from Commissioner Jaber, Mr. Bidy acknowledged that the tests he did have performed didn't determine what resulted in the black water in the home. (TR. 933). Mr. Bidy acknowledged under cross-examination that the test method utilized by Savannah Labs **specifically excluded** the detection of copper sulfide. (TR. 934).

It is also notable that Mr. Bidy seemed to have no problem rendering the opinion that the black water is not being caused by copper sulfide as has been the claim of Aloha Utilities in the past (TR. 875), and that, at least at the Coogan residence, the very black water is not due to copper sulfide but from some other unknown chemical combined with copper ... (TR. 875) while at the same time candidly acknowledging that he does not know the source of the black water problem (TR. 888), and that he does not know what the cause of these water quality problems are (TR. 889).

Mr. Porter was of the opinion that the chain of custody forms from Savannah Labs did

not indicate that proper preservation methods were used for the samples taken at any of the residents' homes (the sampling event of August 5, 1999) and that, as with the well samples, the results of any testing on the same is therefore invalidated. (TR. 1016). Mr. Porter agreed that the method used by Savannah Labs specifically excludes its use for detecting sulfides when it is combined with copper to produce copper sulfide. (TR. 1016). Mr. Biddy's assumption that the black residue found in Mr. Coogan's water cannot be copper sulfide, which was based on his laboratory data which does not show the presence of sulfide in the water, is inherently false because the testing method used by his laboratory specifically excludes measuring sulfide in the form of copper sulfide. (TR. 1016).

d) *Pressure filters would be by far the most cost-effective method for sulfide and sulfate removal. (TR. 875).*

Mr. Biddy's statement that pressure filters would be "by far" the most cost-effective method for sulfide and sulfate removal stands in stark contrast to his response to a question from Commissioner Jaber that he is not sure that the pressure filters would actually help the black water problem. (TR. 973). Mr. Biddy also testified that he is really not recommending the pressure filters, he is only recommending that the matter be studied before anything else is done. (TR. 973). Also in response to a question from Commissioner Jaber, Mr. Biddy said that his recommendation to the Commission that they should consider the pressure filters as an alternative is based on what he read over the internet. (TR. 969). Mr. Biddy is not aware of the pressure filter system he (at least initially) seemed to suggest being implemented anywhere else in Florida (TR. 966) and in fact he couldn't name one utility in the United States that uses the type of pressure filter that he alluded to (TR. 986).

In contrast, Mr. Porter gave very affirmative testimony on the subject of pressure filters. In the opinion of Mr. Porter, Mr. Biddy's testimony regarding the use of pressure filters was seriously flawed. Hydrogen sulfide is a gas and is not a solid or a particle. It is a basic and

rudimentary engineering fact that filters are used to remove solid particles by a straining action and that filters cannot remove a gas as it passes through the filter media and that therefore such a gas is not able to be strained out (TR. 1022). Mr. Porter noted that Mr. Bidy has never designed a facility using pressure filters for direct hydrogen sulfide removal and that Mr. Bidy is not aware of any facilities in Florida utilizing pressure filters for direct hydrogen sulfide removal. (TR. 1023). Mr. Porter also testified that to the extent Mr. Bidy had altered his opinion to try to describe the filter as an oxidative filter, that Mr. Porter was not aware of any oxidative filters he has ever seen in all of the years he has been an expert in the water and wastewater engineering field used for anything other than very, very small systems and he is not aware of any one anywhere in Florida or in the United States being used for an utility of this size. (TR. 1051). It was interesting that Mr. Porter talked to the same company that Mr. Bidy seemed to rely upon and, in fact, that company sent Mr. Porter a letter. (TR. 1051). Unlike Mr. Bidy, who only talked to a representative, this letter came from the president of the company. (TR. 1054). The letter indicated to Mr. Porter that before use of the filter Mr. Bidy had proposed, one was going to have to require relatively expensive facilities. (TR. 1053). There would need to be a substantial amount of equipment for that type of a filter to work (TR. 1054), and those pretreatment steps or any of the after-treatment steps which would be required were not included in Bidy's proposal and that would cause the costs to go up dramatically. (TR. 1054). Unlike Mr. Bidy's proposal, which was gleaned after a review of the internet and talking to a salesman, Mr. Porter's proposals as contained within his report were submitted to DEP, were peer-reviewed by DEP, and DEP indicated they were permissible. (TR. 1057).

Likewise, Mr. Steve Watford indicated that in his 24 years in the utility business he has never heard of utilization of pressure filters for the removal of hydrogen sulfide in any system and he also noted that Mr. Bidy hasn't either. (TR. 1075). To the extent there are any utilities in



Aloha's area that are attempting to remove hydrogen sulfide from the water, they are doing so by the use of tray or packed tower aeration just as Aloha is proposing and just as is the industry norm. (TR. 1076).

Michael Leroy, expert witness for the Department of Environmental Protection, agreed with Mr. Porter's testimony regarding Mr. Bidy's implication (which he himself seemed to later contradict during his testimony) that these pressure filters were the "solution" to any black water problems.

In response to a question from Commissioner Clark, Mr. Leroy testified that hydrogen sulfide is a gas and filters don't really do much for gasses. Hydrogen sulfide goes right through reverse osmosis filters, which are one of the tightest filters there are. (TR. 695). Mr. Leroy also testified that while he is aware of small point of use oxidizing filters, he can't really speak to the effectiveness of removing gas with a filter, because DEP doesn't get into point of use devices, but regulates large water systems. (TR. 728). When asked by counsel for OPC if it is his testimony that there are no large devices that do the same thing, he testified "I hate to say no" but then said "I'm not aware of commercial size utility filters" such as that described by Mr. Bidy. (TR. 728). Counsel for OPC then strategically beat a retreat saying "I would hate for you to tell me no, too. Why don't we leave it at that." (TR. 728-9)<sup>4</sup> When counsel for Aloha attempted to follow-up, the question was not allowed and when counsel for Aloha stated "it is a critical issue ..." Counsel for OPC then candidly acknowledged, "that is why I abandoned it ..." (TR. 729)

- e) *I would tell the Commission that the source of the problem has not been determined yet by me or by the utility. (TR. 876)*  
*(T)he report (produced by Aloha) did not adequately address the Commission's Order*

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<sup>4</sup>The transcripts incorrectly identifies that question as having been asked by Mr. Deterding. In fact, that question was asked by Mr. McLean and the sentence at the end of that reference "That raises another question" was asked by Mr. Deterding.

*in that the report did not attempt to isolate the problem area(s) and then study ways to upgrade the water quality at the problem area(s) ... (TR. 867-8).*

While the most succinct and sustainable portion of Mr. Biddy's testimony was that he did not know the source of the problem, he had no basis to attempt to cloak Aloha with the same lack of knowledge that he candidly admits he possesses. Aloha has consistently identified the source of the problem and has consistently and pervasively offered solutions to the problem and its willingness to implement these solutions upon order to do so by the Commission.

Mr. Porter and Mr. Watford's testimony exhibited that Aloha has exhaustively studied this problem to the extent feasible and possible.<sup>5</sup>

Hydrogen sulfide is not present in excessive levels in Aloha's water. (TR. 486). This naturally-occurring constituent of the water is converted to sulfate at Aloha's water treatment facilities. (TR. 487). The resulting levels of sulfate are nowhere near the maximum limits allowed by the environmental regulatory authorities, nor are they as high as in the Pasco County system. (TR. 486). Mr. Porter's suggested plant improvements will reduce any odor concerns of customers and have an impact on copper corrosion. (TR. 486). Mr. Porter was of the opinion that these improvements are not required by DEP and EPA, but may be required within the next three to six years, but Aloha has volunteered to make these improvements immediately. (TR. 486).

Mr. Porter also explained how water quality can be negatively impacted by home water treatment units and hot water systems in the customers' homes. (TR. 486). Home water treatment units change the water chemistry from what is provided by Aloha and can increase the corrosivity of the water. (TR. 486). The number of sulfur-reducing bacteria can increase to high numbers when

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<sup>5</sup>This testimony stands in stark contrast to the testimony of Mr. Biddy who made very clear that he had purposefully ignored all previous evidence on the issue of black water and hydrogen sulfide in what he claimed was an attempt to remain "neutral" and to base his analysis solely on his own testing and review. In effect, what he did was intentionally keep himself ignorant of the over four years of data accumulated by various entities on this issue. (TR. 998)

the quantity of hot water used in the home is small relative to the size of the hot water system. (TR. 486). The quality of the water as it is delivered to customers' homes by Aloha is of high quality and meets, and in most cases exceeds, all EPA and DEP standards. (TR. 487). The corrosion control program implemented in 1996 by Aloha has performed as expected and was deemed optimized by the DEP in August of 1998. (TR. 487). The DEP in June of 1999 notified Aloha that its corrosion control system was operating so well that the system was granted reduced monitoring. (TR. 487).

At TR. 487, Mr. Porter extensively testified about what factors can negatively affect the quality of the water after it is supplied by Aloha to the customer in his or her home. Mr. Porter was of the opinion that water quality changes that take place in the customers' homes are the primary, if not the exclusive, cause of the corrosion of some customers' copper piping systems. (TR. 488). This corrosion of the copper pipe generates a copper sulfide by-product that is experienced as "black water" in some customers' home water systems. (TR. 488). Home water systems and hot water systems are the primary cause of the adverse water quality changes. (TR. 488). Aloha has investigated the matter and has asked DEP to assist them in that endeavor and DEP has rendered such assistance. (TR. 491). The DEP and Aloha have conducted an extensive and rather unprecedented review of what was going on with the customers. (TR. 492). It was actually DEP who identified the copper sulfide problem. (TR. 492). There is a lot more information nationwide about copper sulfide problems than there was five years ago, and originally the body of research available on this issue was very minor. (TR. 493). From Jacksonville down to Orlando, across the I-4 corridor into Tampa Bay, there is a tremendous problem with copper corrosion. (TR. 495). Mr. Porter testified about the many plumbing contractors in the Orlando area who he had talked to about copper piping being full of holes which had to be replaced. (TR. 495). The common solution is to replace it with CPVC. (TR. 495). There are localities in the state of Florida that have taken copper out of the approved

materials list for residential construction. Duval County is one. (TR. 496). These copper corrosion problems can be facilitated by lightning strikes and the way the copper piping is grounded for the systems in the homes. (TR. 497). Mr. Porter explained in detail the grounding problems starting at TR. 498. It is notable that Aloha's distribution system pipes are PVC. (TR. 497).

Mr. Porter testified that if a home doesn't have a water softener, the minerals build up inside of the copper pipe and make a barrier between the water itself and the copper. (TR. 501). Aloha is doing everything it can to protect customers' pipes. (TR. 803). Four years ago Aloha started an aggressive DEP and EPA-approved corrosion control program for its water system and it has been diligently and effectively providing this corrosion inhibitor over the past three and a half years. (TR. 503). While water softeners aren't the only problem, they exacerbate the problem. (TR. 505). However, it is not surprising that some people who don't have water softeners have the problems because a whole host of factors may cause the problem. (TR. 505). Mr. Porter testified about his familiarity with the University of Colorado Study which is at present the definitive work on the issue. (TR. 507)<sup>6</sup>. That study concluded that once a problem begins, the material that is deposited on the pipe (the black stuff that people testified about) actually acts as a catalyst to keep the reaction going and once it there it is almost impossible to stop. (TR. 507). Mr. Porter did say that as far as what people are seeing in their toilets, in his opinion that was mostly a misconception. The little balls in the bottom of the toilet tank are black and rubber and they disintegrate over time. (TR. 508).

Mr. Porter noted that never once in the entire five years this matter has been discussed

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<sup>6</sup>A copy of this article is attached to Mr. Watford's testimony and is Exhibit 15 to this proceeding. This study has been subjected to extensive peer review and has now been published in Volume 90, July, 1998 edition of The Journal of the American Water Works Association. This article clearly demonstrates that the occurrence of copper sulfide in drinking water is relatively common and can occur in any system where hydrogen sulfide exists, as it does in most Florida groundwater. (TR. 738).

has anyone, any source, any person, any agency shown that the water going into every single customer's home doesn't meet all applicable rules and no one has shown a sample going into a customer's home that wasn't clean and clear. (TR. 511). Mr. Porter also discussed the need to raise hot water tank temperatures but the negative implications of doing that also. (TR. 515). He noted that Aloha has never found any measurable quantity or reproducible measure of sulfides going into any of the homes in Aloha's service area because the chlorination essentially works throughout the distribution system. (TR. 524).

Mr. Porter is familiar with black water in the Pasco County system. (TR. 531). He also noted that Pinellas County and Orange County have implemented the very same treatment processes for the very same reasons as Aloha has discussed in this case. (TR. 533). It was Mr. Porter's opinion that Aloha's water is virtually no different from anybody else's water in the area and the amount of hydrogen sulfide in the raw water is typical of the waters in the area. (TR. 534). Aloha's water is exactly the same or in some cases less in terms of the amount of sulfates than surrounding neighboring utilities. (TR. 534). DEP has indicated time and time again that Aloha's water meets all of the rules. (TR. 535). To the best of Mr. Porter's knowledge, there has not been any confirmed cases of Aloha customers with no copper pipes that have experienced black water. (TR. 575). Mr. Porter analogized that if one has good quality milk in a lead container and finds lead in the milk, you would not blame the milk. (TR. 627).

Referring to the so-called Pasco County Black Water Study, it was the opinion of Mr. Porter that one should not rely upon any information to determine compliance of a water system that doesn't have back-up material, chain of custody, etc. (TR. 613). He also noted the results of the Pasco County Black Water Study were inconclusive and mixed. (TR. 614). Mr. Porter also noticed that the Pasco County Black Water Study did not address whether softening units had an affect on the

copper corrosion as a whole. (TR. 617).

Michael Leroy on behalf of DEP also addressed the root cause of the problem some of the customers are experiencing. As for the Pasco County Black Water Study, he indicated that it in no way reflects anything in DEP's rules from a compliance standpoint, that there was no chain of custody, and that the report was not intended in any shape or form to be a compliance report on Aloha. (TR. 669). He drew the conclusion that there were really no conclusions you could draw from the data in the Pasco County Black Water Report. (TR. 672). The purpose of the study was not to determine whether the cause for the black water was Aloha or something inside the customers' homes and the report doesn't answer that question. (TR. 674). Mr. Leroy also acknowledged that within the Pasco County Black Water Study, the testing was of all the wrong things and all of the wrong places from a compliance standpoint. (TR. 713). Mr. Leroy agreed with Mr. Porter's testimony that water softeners strip out the calcium and without the calcium, then the corrosion inhibitor can't lay down a protective film. (TR. 683). Mr. Leroy also indicated that he was aware of people at DEP living in Hillsborough and over in Orlando that have gone through and completely replumbed their homes with CPVC because of copper corrosion. (TR. 684). Mr. Leroy was of the opinion that the study that Mr. Porter had put together proposed the correct solution. (TR. 685). He believed that solution would help taste and odor and black water coloration. (TR. 685). If you remove the hydrogen sulfide from the water, then you are not going to have the reaction occur in the houses. (TR. 685). Packed tower aeration is the treatment that is generally called for the removal of hydrogen sulfide in water systems. (TR. 691).

Mr. Leroy's testimony was consistent with Mr. Porter's in that he noted that the same corridor Mr. Porter described, in the state of Florida is where the state has had the biggest problem with copper corrosion. Not only did he agree that the I-4 corridor stretching from the Jacksonville

to the Tampa vicinity had such problems, he added that these concerns continue in a corridor through Sarasota County and continuing down into Lee County. (TR. 695-6). Duval County has banned the use of copper piping for residential construction due to the tremendous amount of problems copper piping has caused. (TR. 697). Orlando has issued a high number of building permits to plumbers to replumb buildings to fix this same problem and there are a lot of plumbers who went out and replumbed homes without ever getting building permits so they aren't sure how big the problem is. (TR. 697). Orange County and the City of Orlando and Seminole County have had tremendous problems with copper corrosion. (TR. 697). He also understands there have been problems in Polk and Pinellas County. (TR. 697). He indicated the thought had occurred to him that if people would invest in their water system they wouldn't need the investments they are making in individual in-home water treatment systems. (TR. 706). He testified that 1236 plants aerate for taste and color in the state of Florida. (TR. 706). He also agreed that Aloha's present system can be effective as long as the water is not reconverted. (TR. 707). That is because the chlorine hits the water and turns it into one thing, but then the water gets in the house and the conditioners convert it back. (TR. 708). He reiterated that Aloha has the right solution and that is packedtower aeration. (TR. 712). He said the problem in his opinion is that there were two extremes: the customers aren't willing to pay the money and Aloha wants a guarantee for rates before they proceed. (TR. 712).

Mr. Leroy was of the opinion that replacing in-home water pipes with PVC would eliminate the copper corrosion. (TR. 716). If Aloha's system is all PVC, as he understood it was, the first copper is occurring at the home and eliminating it from the home obviously would take care of the problem. (TR. 716). DEP has specifically approved Aloha's use of the corrosion inhibitor as the method for controlling copper corrosion in its system. (TR. 718). As to the Pasco County Black Water Study, Mr. Leroy testified that while the Study contains a statement that packedtower aeration

would not be the engineering solution of choice, his interpretation of that statement was that it was not referring to packedtower aeration's advisability as a process for hydrogen sulfide removal. His reading of that portion of the Study was that all the author was suggesting is that packedtower aeration would not be the engineering solution of choice for the removal of THM's. (TR. 721).

In contrast to Mr. Biddy's statement about his own ignorance, there is a lot of information and knowledge out there about these problems, and Aloha has done everything it could to learn about this problem, the cause of these problems, and the potential solutions for these problems. Mr. Biddy may not understand what is causing these problems or what range of solutions are available to address these concerns, but the evidence conclusively revealed that Aloha and DEP do not share that particular lack of knowledge.

#### The Orders for which Official Notice was Taken

The Commission Staff has specifically noted three orders that the Commission should take official notice of in reviewing quality of service for this Utility. These are Commission Order No. 19093, issued on April 4, 1998, in the Application of North Beach Utilities, Inc.; Order No. PSC-96-1320-FOF-WS, issued on October 30, 1996 in the Application for Rate Increase and Increase in Service Availability Charges by Southern States Utilities; and Order No. PSC-99-0513-FOF-WS, issued on March 12, 1999, in the application of United Water Florida for a rate increase in Duval, St. Johns and Nassau County. In each of those cases, the Commission found the quality of service provided to the customers to be satisfactory. However, in each of those cases, the Commission also noted deficiencies, either in the form of specific accedences of regulatory requirements or additional actions or improvements to the quality of the product provided or to the operation or addition of facilities that needed to be made in order to comply with regulatory requirements. While in each of these cases there were indications of dissatisfaction by customers, that dissatisfaction in and of itself



was not sufficient to result in the Commission finding poor quality of service provided by Aloha.<sup>7</sup>

Aloha has demonstrated through unrefuted evidence, both by its president and consulting engineer, as well as the testimonies presented by the Staff and DEP, that it is not only complying with all regulatory requirements, but has done everything reasonably necessary or appropriate in order to address the concerns raised by the customers despite the fact that those concerns result from factors occurring beyond Aloha's point of delivery. Aloha has demonstrated a deep interest in helping to alleviate the problems that occur on the customers' side of the point of delivery despite the fact that these problems are beyond its legal responsibilities. Aloha's actions in this regard are not only indicative of fully complying with all regulatory agent and Commission rules and regulations, but also as attempting to assist its customers in resolving problems internal to the customer's own system. As such, the cases cited by the Staff fully support the position of Aloha, that its quality of service must be found to be satisfactory in all aspects, especially in light of prior Commission precedent wherein utilities with known operational or utility product concerns were found to have satisfactory quality of service. The evidence clearly demonstrates that Aloha has no such problems. While customer satisfaction is an integral part of the Commission's investigation and review in any rate making or quality of service proceeding, the dissatisfaction of the customers with the quality of the end product alone cannot and should not support a finding of unsatisfactory quality of service. This is especially true in light of the current circumstances wherein all evidence demonstrates that the dissatisfaction of the customers actually is based upon Aloha's inability to resolve problems occurring

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<sup>7</sup>For instance, in the United Water Order, the Commission noted there were a total of 77 complaints regarding poor water quality and 69 complaints regarding rates and at least two of the customers were representing multiple families totaling 277 customers and each of those two customers complained about rates and quality. While the Commission did require United Water to develop a program that requires an utility representative to return customers' telephone calls within a specified time period, to be more responsive to customer complaint letters and telephone calls, the Commission found the quality of service provided by United Water to be satisfactory. See 99FPSC3:274-5.

within the customer's homes over which Aloha does not and cannot have ultimate responsibility. Aloha has taken unprecedented steps in trying to alleviate the customers' concerns despite the fact that those concerns arise from factors occurring on the customers' side of the point of delivery.

In addition to the technical evidence presented, customers of Aloha did raise significant issues concerning the quality of the product delivered by Aloha to their homes, and while the information provided by those customers does not generally rise to the level of expert testimony on the subject so as to counter that provided by Aloha engineer, the DEP witnesses and the independent testing labs, that customer input nevertheless requires review and analysis based upon the technical evidence. The issue of customer input is separately discussed, *infra*, at page 35.

## 2. **Operational Condition of Aloha's Plant and Facilities**

Mr. Porter, Mr. Watford, and Mr. Screnock of DEP all testified that Aloha is operating its facilities in accordance with all regulatory requirements and is providing a high quality product as a result. Neither Mr. Bidy, the customers, nor any other witness provided any testimony to draw into question the conclusions of Aloha witnesses and the DEP staff in that regard. As such, there is no basis upon which to find other than that the operating condition of Aloha's Utility plant and facilities is satisfactory.

While a few customers did present testimony concerning what they perceived to be excessive flushing and substandard pressure, those issues were fully addressed in Late-Filed Exhibit 13, and in the testimony of Mr. Watford (TR 741) and Mr. Porter. That issue is further addressed hereunder, under the *Customer Satisfaction* heading.

Under questioning by the staff as a potential basis for funding the cost of any substantial improvements to Aloha's system, Mr. Watford was questioned about utilization of service availability fees to fund such costs. While not expressing any direct opposition to an increase in service

availability fees, Mr. Watford did note the following significant concerns with that proposal:

1. The improvements that the Utility is anticipating would probably not be undertaken for 5 to 7 years, unless otherwise ordered by the Commission (TR 821).
2. The Utility is already over the PSC guideline for maximum Contribution in Aid of Construction (CIAC) level (TR 822), and in fact, received notification of a concern on the staff's part with the high level of CIAC the Utility already had collected.
3. At this time, the Utility has no idea what they will be building or when that construction will take place (TR 823 and 846).
4. Service availability charges alone could not make it possible for the Utility to finance a substantial construction project, and rates would be necessary in order to attract capital through a bank (TR 823, 839-841).
5. The recent indications that the IRS will begin taxing any CIAC collected that is not strictly utilized within a two year period of collection (TR 837-838) and the possible effects that would have on the Utility's ability to raise capital for new service availability for future construction (TR 859-861).

Therefore, while increases in service availability charges may be one of the viable options to consider to assist in the funding of such improvements, rate increases are a necessary prerequisite to obtaining any financing for such facilities and there are inherent dangers and problems with attempting to fund substantial amounts of such construction through service availability.

### 3. **Attempts to Address Customer Satisfaction**

As noted at the Introduction, Aloha believes that its quality of service and its attempts to address customer satisfaction were fully in compliance with all regulatory requirements prior to the last hearing in this proceeding in 1996. However, the evidence clearly demonstrates that Aloha has taken several additional steps to improve customer satisfaction. These were enumerated in the Direct Testimony of Mr. Watford and through the response to customers concerns provided as Late-Filed Exhibit No. 13. Separately discussed below are the actions taken by Aloha in order to improve customer relations and responsiveness to customer concerns:

- A. Mr. Watford provided detailed testimony, including SGW-3 (Exhibit 15), to demonstrate that Aloha has been in full compliance with all regulatory requirements concerning record keeping and responding to customer complaints. However, in addition, Mr. Watford noted several additional steps that Aloha has undertaken to address customer concerns and to further enhance its handling of

customer complaints. These specifics were outlined in his testimony as follows (TR 741-744):

- B. Aloha has installed a new computer system to help them be able to track customer complaints more effectively, efficiently and precisely, and to review the trends and investigative results of all such complaints and to keep better records of those complaints (TR 742).
- C. Aloha has assigned a single customer service representative to handle all complaints of water quality, so that no customer is left in a position of having to talk to two or three different people about the same concern. In addition, this assists the customer service representative in not only knowing the individual complaints, but in being more aware of the nature of customer complaints, and their frequency (TR 742-743).
- D. Mr. Watford noted that Aloha has undertaken several staff meetings in order to educate its customer service personnel as to their responsibilities to treat the customers with courtesy and dignity, and to ensure that all complaints are thoroughly checked out and resolved to the extent possible. Aloha has also undertaken regular staff meetings to discuss customer concerns and problems, and the resolution of those problems (TR 742-743).
- E. Aloha has prepared two newsletters to its customers on the black water and odor issues alone, and distributed those to the customers in order to educate the customers on the cause of the problems some have been experiencing in that regard, and to offer potential solutions to those problems (Late-Filed Exhibit 27).
- F. Aloha has prepared an informational packet that includes extensive additional written information about hydrogen sulfide and the effects of various things that occur within the customers' homes that may effect the quality of water that a customer ultimately receives at his tap after delivery of clear, odor free water by Aloha (TR 743 and Late-Filed Exhibit 27).
- G. Aloha has specifically undertaken internal flushing of lines for customers inside those customers' homes and inspections of those customers' homes over the past several years, in order to assist the customers to the extent possible in resolving problems with their internal water systems well beyond the point of delivery of Aloha and its responsibilities (TR 743-744).

All of the above additional measures undertaken by Aloha are above and beyond the requirements imposed on Aloha by any regulatory requirement or Commission Rule. By undertaking these additional steps, Aloha has demonstrated its desire to assist its customers in addressing their water quality concerns, even if those water quality problems only occur within the customers' homes, and beyond the point of Aloha's legal responsibility.

#### 4. **Customer Complaints at Hearing**

The primary focus of the customers who did testify were in the areas of water

discoloration, odor and pressure.

Fifty total customers testified at hearing concerning their perception of problem with the quality of service provided by Aloha. Of those, one customer, Ms. Sessa, is actually a customer of the Aloha Gardens system which is serviced primarily by bulk water purchased from Pasco County. (TR. 230-1). As such, while her concerns with smell and discoloration are not directly relevant to the issue of the water quality within the Aloha Seven Springs System, it is relevant to show that the customers concerns of discolored water and odor are not unique to Aloha's water, and in fact, are present in Pasco County's water as well.

As outlined in Late-Filed Exhibit 13, Aloha's consulting engineer visited the homes of each of the customers who testified at hearing and who responded to Aloha's request for the opportunity to provide such an in-home visit. The findings with regard to each of those customers fully supports the statements made by Mr. Watford and Mr. Porter with regard to the causes of the discoloration and odor problems experienced by these customers (i.e. home softening units, copper piping, other home treatment units, electrical grounding to water pipes, etc.) (TR 737-741, 485-489). The results of the investigation of these customers' complaints not only fully support Aloha's contentions as to the causes and possible solution to these customers problems, but in addition, the investigation by Aloha's consulting engineer resulted in his finding that the water entering each customers' home system was clean and clear and without odor in each and every case. These findings are consistent with what Mr. Bidy found in his visits to customer homes in August of 1999 and consistent with the results of the Commissioners' visits to several customers' homes in the Summer of 1998 (Exhibit 13).

Both Mr. Watford and Mr. Porter noted that Aloha has been and continues to meet all pressure requirements imposed by the DEP rules (TR 741), and in fact, provides an explanation for

what may appear to the customers as deficient pressure, based upon the watering restrictions and the irrigation schedule imposed by the Water Management District, which encourages once a week simultaneous maximum demand on Aloha system (Exhibit 13).

The home visits commissioned by Aloha and performed by its consulting engineer not only fully support Aloha's contentions concerning quality of product and operation of the Utility's system in conformance with all standards as alleged by Aloha and its expert witnesses, but in addition, the consulting engineers' discussions with each of the customers, review of their internal system, and offering of suggestions in each case, further demonstrate Aloha's concern with addressing customer satisfaction and ensuring that every opportunity to assist the customers in resolving their internal plumbing problems has also been addressed and assistance offered.

There was some talk in this proceeding about a Survey of Customer Satisfaction which the Commission required Aloha to undertake in a 1997 Order. The Survey specifically noted on its face in bold language that those people who found the water quality and service satisfactory were told they need not respond. (TR. 747). As such, Aloha feels that the Survey can only fairly be read with a comparison of the Survey Results to the total number of people surveyed. (TR. 747). Aloha has provided the Commission with its analysis showing the way the Survey Results should properly be characterized and that analysis is a portion of Composite Exhibit 15.

Therefore, based upon the great weight of the evidence provided in this proceeding with regard to quality of Aloha's product; the operational condition of Aloha's plant and facilities; and Aloha's attempts to address customer satisfaction, Aloha has demonstrated that it is providing not only satisfactory quality of service to its customers but that it has gone above and beyond its legal obligations and its point of delivery in order to try to assist customers with water quality concerns occurring within their homes. In addition, Aloha has offered in this proceeding to make additional

substantial capital investments to its treatment facilities in order to further enhance the quality of Aloha's water well above all regulatory requirements, if that is what the Commission deems appropriate in order to further address customer concerns. (See Composite Exhibit 15 and TR. 739-40).

## ISSUE 2

**What action, if any, should the Commission require Aloha to take to improve the quality of service?**

Aloha has demonstrated through the direct testimonies of Mr. Watford (TR 744-745) and Mr. Porter (TR 488), that Aloha is currently in compliance with all regulatory standards concerning the provision of high quality water and utility services. In addition, Aloha has demonstrated its willingness to further assist its customers in addressing their specific concerns, even though those concerns may result from factors beyond Aloha's point of delivery.

Aloha did, however, in addition to demonstrating full compliance, offer to make improvements to its system beyond those necessary to meet existing regulatory requirements. Mr. Porter presented DWP-12 outlining in great detail the nature of those improvements, their effects on the water quality provided by Aloha, and their cost. Mr. Watford provided testimony that Aloha was ready, willing, and able to move forward with the construction of those facilities if the Commission deemed that such additions were appropriate and provided the necessary direction and rate support (TR 745-746).

Mr. Watford also presented substantial evidence, as previously discussed above in Issue 1 hereof, concerning the additional measures that Aloha had undertaken above and beyond Commission requirements in order to fully track, analyze and deal with customer complaints and to ensure that all such complaints were fully addressed and resolved to the extent within Aloha's power to do so. The evidence demonstrates, and that evidence is unrebutted, that Aloha has complied with

all applicable regulatory standards and that Aloha has undertaken measures well beyond the extent of its legal responsibility in order to try and alleviate the concerns experienced by some customers including, but certainly not limited to, procedures to ensure proper record-keeping and response to customer complaints.

The customer testimony reflected affirmatively that Aloha is responsive and does try to address the concerns of the customers, even if those concerns are centered on the customer's side of the meter. Mr. Watford correctly noted that until there is a solution brought to the table, the customers are not going to say they are "satisfied." (TR. 776). No matter how responsive the utility is to customer concerns, until there is a resolution given to the customers, they are not going to be "satisfied." (TR. 776). The evidence reveals that Aloha has done everything within its power to achieve that resolution.

Mr. Watford noted that Aloha can't make the black water go away for the customers that have copper piping. (TR. 834-5). He noted for the record that the customer witness who spoke on behalf of the Chelsea Homeowners Association conducted a survey in which he specifically testified that customers who said they were "not satisfied" did not do so because Aloha was not responsive or courteous, but because the problem hasn't been solved. (TR. 835). Aloha has done everything that it can for a problem that is beyond the point of delivery, beyond the point of connection, and by all rights up until this case has typically been something that was not the responsibility of the utility to address. (TR. 835).

As indicated previously in this brief, there was no credible evidence of any alternative measures Aloha might undertake other than that evidence provided by Mr. Watford and Mr. Porter. The "opinions" of Mr. Bidy in this regard were revealed to be either speculative, founded upon tenuous or unsubstantiated information, or simply erroneous. A more detailed discussion of those



issues commences at page 11.

### CONCLUSION

The evidence in this proceeding clearly revealed that Aloha has done everything it could to educate itself about this issue, to address the customers' concerns regarding these issues, and to propose alternative solutions to these issues. While some customers are experiencing legitimate problems and concerns with the quality of the water which pours from their taps, the evidence revealed conclusively that the quality of Aloha's product as delivered to the point of delivery is satisfactory in all respects. Additionally, the evidence clearly revealed that Aloha has been responsive to customers' concerns and intends to continue to be responsive to those concerns.

Based upon the evidence, exhibits, and testimony at hearing, the Commission should not require Aloha to take any action in order to improve the quality of service. Aloha is currently in compliance with all regulatory standards concerning the provision of high-quality water and utility services. Aloha has also demonstrated its willingness to further assist its customers in addressing their specific concerns, even though those concerns may result from factors beyond Aloha's point of delivery and, therefore, its legal responsibility.

Respectfully submitted this  
19<sup>th</sup> day of May, 2000, by:  
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## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Post-Hearing Memorandum has been furnished by \*Hand Delivery or U.S. Mail to the following parties this 19<sup>th</sup> day of May, 2000.

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