ORIGINAL BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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IN RE: Investigation of utility rates of Aloha Utilities, Inc. in Pasco County DOCKET NO. 960545-WS Filed: May 19, 2000

BRIEF OF THE CITIZENS OF THE STATE OF FLORIDA

The Citizens of the State of Florida, by and through JACK SHREVE, Public Counsel, file this their Brief of the Citizens of the State of Florida. References to the transcript in the hearing will be indicated as (Tr. Xxx); where references are to the testimony of customer witnesses, the reference method may vary, but it is intended to furnish the reader with accurate indication of the transcript location along with the name of the customer witness; references to a hearing exhibit will be indicated as (Exhibit xxx, schedule xxx). Where the Citizens have changed or added to the positions announced at the prehearing conference, the position taken is denoted with asterisks (*).

BASIC POSITION

Aloha Utilities, Inc., ("Aloha" or "the Company") has failed to demonstrate that the quality of service provided by the utility is satisfactory. The quality of the water provided by Aloha is deplorable. It is unconscionable that the customers are forced to endure the expense, inconvenience, embarrassment and potential health risks that result from the atrocious water that is distributed to their homes by Aloha. Aloha's proposed solution to the water problems that the customers are experiencing is extraordinarily expensive. Their solution would increase the customer's rates nearly 400%. The scope of Aloha's solution is beyond what is needed and there is no assurance that it will solve the problems.

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The Commission should order Aloha to undertake a comprehensive test to determine the causes of the problems that the customers have experienced. Aloha should be ordered to develop cost-effective solutions to the problems. When developing its solutions, Aloha should consider oxidizing pressure filters as well as aeration and such other measures as may be required to provide the customers with the quality of service that they deserve and pay for. The testing and development of solutions by Aloha should be open to review by its customers and the Citizens. The comprehensive testing and development of proposed solutions should be completed within 90 days following issuance of the Commission's order.

ISSUES AND POSITIONS AND DISCUSSION

<u>ISSUE 1</u>: Is the quality of service provided by the utility satisfactory?

POSITION: *No, The quality of service is still unsatisfactory.*

DISCUSSION:

With respect to the quality of water delivered to the customers' homes, the record is replete with overwhelming evidence that Aloha's product is poor. There was a tremendous turnout of customers who expressed their intense dissatisfaction with this situation (excerpts from the customers' testimony is attached hereto as "Attachment A"). The customers' complaints are alarmingly similar to those expressed during the previous round of hearings held during 1996 in Docket Nos. 950615-SU/960545-WS. In describing those hearings, Representative Fasano stated "In September of 1996, you, the Commissioners, saw the physical presence of over 1,000 customers throughout the day who personally came out to protest a rate increase requested by Aloha. The testimony of many people who spoke and the dozens of jugs of black discolored water spoke for all who came out to make their opposition known." (Fasano, Tr. 20/3-9) Over four and a half years have passed with no reprieve from their predicament. The customers' frustration is understandable and justified. A solution must be found.

The water supplied by Aloha is frequently dirty and discolored. The customers often refer to it as black water, or sometimes as swamp water. Mr. Mitchell described the sample of water he brought to the hearing as "... just black dirty water." (Mitchell, Tr. 90/24-91/2) The age of their homes seems to make little difference. Mr. Wood stated, "I have a house that was at that time four months old and I got black, dirty, filthy water." (Wood, Tr. 236/8-10) The water doesn't just look bad -- it also stinks. Mr. Pratt reported that the smell made him almost physically sick. He testified that he tries "... to leave the room because the smell is so bad it actually could almost turn your stomach." (Pratt, Tr. 209/3-5) The smell isn't always the same. "Sometimes it is the sulfur rotten, sometimes it is just a moldy, misty, kind of foulness that you really don't want to get involved with. I mean, you are pouring this right out of the tap." (Clayton, Tr. 306/9-12) At other times "You can smell the chlorine in it." (Stein, Tr. 372/13)

Aloha doesn't seem to be able to get the level of chlorine right. Mr. Mitchell reported that he has tested the water several times using his own commercial type chlorine test kits. He said that "Sometimes it tests like it is safe to swim in. Sometimes, again, it has zero chlorine." (Mitchell, Tr. 90/9-15) Mr. Mitchell further stated that "... sometimes when Aloha's technicians came out and tested it they found the same thing. Sometimes they found zero chlorine and sometimes it was almost 2 parts per million." (Mitchell, Tr. 92/11-14) Mr. Sessa said the chlorine smell "... reeks through the whole house when you put on the water." (Sessa, Tr. 230/17-20) The customers are

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concerned that the chlorine may affect the health of themselves and their children. Mr. Hennessy related "At various points in time we have noticed extreme chlorine levels, very high in our water. I did a test on the chlorine, and the chlorine levels were higher than my pool. And that was a scary thought about having my kids, you know, brush their teeth, drink the water, which we use for our coffee." (Hennessy, Tr. 424/8-13)

The water provided by Aloha is nearly unusable for many household purposes. Representative Fasano is the person to whom many of the customers have turned to air their complaints. Mr. Fasano testified the ". . . problems were many and varied. From relatively simple complaints of low water pressure to horrendous reports of black foul-smelling water gushing from taps." (Fasano, Tr. 18/20-22) This situation is not only inconvenient it also becomes expensive. Mr. Reis stated "I don't cook with it, we don't drink It. We buy bottled water" (Reis, Tr. 135/ 15-16) Cooking and hygiene are problematic in the Aloha service area. Ms. Avery stated "I buy bottled water. And I cook with bottled water. And I have even rinsed off with bottled water when the water come out so black in the shower and the bathtub. I have taken bottled water and rinsed it off myself because that water is so rotten and stinking" (Avery, Tr. 80/6-11) Even common household chores are difficult for the customers. Mr. Oberg said that, "... when it comes to washing clothes, my wife complains because the clothes turn gray." (Oberg, Tr. 264,11-12)

The water can be intensely embarrassing for the customers of Aloha. Mr. Bower reported "You know, whenever we have guests, we pray. We pray that they shower and not take a bath. Because when you shower the black water doesn't show up quite as well. It is just very, very embarrassing. One of the things you have to tell your guests is, every time, you may experience some black water. Well, what does that mean, can we drink it? No, you can't drink it. We don't drink our water." (Bower, Tr. 352/17-24) Embarrassment about Aloha's water extends into the commercial sector. Mr. Day is the manager of the technology center for Welbilt Corporation. He said, "... The technology center is the showplace for Welbilt Corporation and all of our customers. You can imagine our embarrassment with the foul odor caused by the hydrogen sulfide levels in the watersupplied by Aloha...." (Day, Tr. 58/13-17)

Many of Aloha's customers have resorted to expensive filtration systems in an attempt to treat the water to a level where it is useable without causing injury to themselves or damage in their homes. Mr. Murphy related, "... we have spent about \$2,000 in water softeners and state of the art RO [reverse osmosis] systems. We don't cook or wash vegetables or drink with the water from the tap, we use the RO system water." (Murphy, Tr. 258/23-25) Some customers have enhanced their reverse osmosis systems with additional filters. Mr. Sebacher said "Since then, in order to get water that we felt we could drink, we have installed a five-stage reverse osmosis system. And behind that I have another carbon filter, and this is the water we drink and make rather decent coffee from. (Sebacher, Tr. 380/24-25; 381/1-3) Mr. King has a charcoal filter in his home. The filters are "... supposed to last about six month, but I change it about every two or three weeks. The cost, you get two of them for \$8." (Mr. King, Tr. 206/17-24) In an attempt to temporarily clear the water, many customers run the water for long periods before use, drain their hot water tank, and even flush all of their water lines. Mr. Bouse reported "I went into the house the other night and turned on all the

water in all the spigots, shut off the water heater, drained everything completely. Started it up again and it did help." (Bouse, Tr. 366/6-9)

The water supplied by Aloha causes a wide range of damage to the customers' homes, businesses and appliances. "In addition to the odor, we have experienced milky water and now the water softener and the water heaters don't work normally. . . ." (Day, Tr. 59/2-4) "... I would just like to add one final note, that this water has permanently stained all of our porcelain toilets. ... " (Clayton, Tr. 297/10-13) "We have experienced what I called and named sludge hunks in our washing machine." (Donaldson, Tr. 407/3-4) "And while we were there for his transplant, the outside water line we had to have it repaired. And this is the water coming from Aloha's line into the house. We have replaced numerous water flippers in each bathroom. . . . The water in the water tanks in the bathroom, they are gritted with black stuff. . ." (Avery, Tr. 77/18-78/1) "You can open up my toilet at any given time, the back part of the toilet, and there is black slimy stuff in it. And we all know it is from the water." (Stein, 378/18-21) Mr. Bagnato reported on a survey conducted by the customers, "We had a question about pinholes, recognizing that chemicals in the water deteriorate piping. We had 19 responses of pinholes for a total of 34 pinholes. Many of these pinholes were before the water entered the house; that is, as soon as they came into your shutoff before they went to any water conditioner or any other appliance before going into the house." (Bagnato, Tr. 187/5-11)

Low water pressure is another problem that was reported by many customers. "Low pressure, yes, we definitely have a low pressure problem." (Corona, Tr. 440/9-10) "The low water pressure is there all the time. I haven't noticed any particular time." (Pratt, Tr. 214/15-17) "Very low pressure when you turn one faucet on. When you use the bathroom the kitchen goes down. You go to use the washing machine and almost no water comes out of the bathroom." (Eustice, Tr. 217/9-12)

Aloha would apparently have the Commissioners believe that the number of problems experienced by the customers has declined. Testimony from the customers roundly refuted any such thought. "I stopped complaining because it didn't do any good." (Reis, Tr. 134/6-14) "I gave up, you know, talking to Aloha." (Martinelli, Tr. 131/23-25) "But as I said, I have heard that a lot of complaints have been made in the past with no action." (Williams, Tr. 309/3-5) Responding to the question, "Have you ever filed a complaint with Aloha about the water discoloration?"; Mr. Lipp stated "No, because I have known what happened and why waste my time. It is as useless as shoveling you know what against the tide." (Lipp, 457/20-24)

The problems associated with Aloha's quality of service are having a negative economic impact on the value of the customers' largest investment – their homes. Mr. Mooney stated, "I am concerned about the resale value of our home." (Mooney, Tr. 449/23-24) The water problems are also having a negative effect on business growth in the area. Mr. Day said "Welbilt corporate offices are planning to relocate to Trinity. In fact, Welbilt corporate called our offices about three weeks ago and asked that we investigate the availability of additional property in the Trinity Commerce Park. But I have to say in all clear conscience, I cannot recommend this area for relocation until Aloha Utilities is required to provide adequate service or an alternate water source is made available to us." (Day, Tr. 64/20-65/5)

The customers don't drink Aloha water because it is offensive and because they are concerned about the possible health consequences. "I honestly think the water is making me sick." (Eustice, Tr. 219/1-2); "If the entire community, and it is almost unanimous, feels that we don't have water that is safe to drink, irrespective of who pays, it can't be tolerated." (Crean, Tr. 280/2-4); "Now, a brand new house, I bought it is August of '95, and you cannot drink the water? Come on, give me a break. It's ridiculous. And what health problems is it causing? . . . I'm suffering some health problems, I don't know if it is due to the water or not, but I'm going to check into it." (Avery, Tr. 78/5-12); "There are six or seven other people in Chelsea Place that have died of cancer. Whether this has anything to do with the water I do not know, but I wish somebody would find out. There are also at least eight people that have cancer but they are still living yet." (Rifkin, Tr. 472/2-9)

<u>ISSUE 2</u>: What action, if any, should the Commission require the utility to take to improve the quality of service?

<u>POSITION</u>: * The Commission should order Aloha to undertake a comprehensive testing program to determine the causes of the quality of service problems and to develop cost-effective solutions within 90 days. These activities should be open to review by the Citizens. Aloha should consider oxidizing pressure filters, aeration and other measures.*

DISCUSSION:

Aloha has proposed spending nearly \$10 million installing packed tower aeration facilities, water towers and many new interconnected mains in an attempt to resolve their quality of service problems. However, their expressed confidence in their proposal may be excessive. It is possible that following comprehensive testing and evaluation of possible cost-effective technologies, that packed tower aeration may be found to be an appropriate element in the final solution. However, it is equally possible that oxidizing pressure filters may be selected as the most cost-effective technology. Furthermore, it is conceivable that a system-wide solution will be required. But, it is equally likely, perhaphs more so, that only wells No. 8 and 9 are the source of the black water problems.

Mr. Biddy testified that Aloha's proposed solution "...included extensive new water treatment, storage, and pumping facilities for all nine existing well sites and even added additonal well sites. Indeed, the recommended system...includes new and expanded facilities for this utility's needs through the year 2015 and beyond at a cost of 9.5 million dollars. This broad brush approach would obviously be good for the utility but in no way solves the problem in a cost effective manner. I believe that the study should have concentrated a study into the cause and cure of the water quality problems at the southwest portion of the service area served by well nos. 8 and 9 where most of the water quality complaints have come from. In deed, the Chelsea, Wyndtree and Wyndgate Subdivisions and surrounding areas are the location of most of the complaints of 'black water' and all of these areas are served by wells nos. 8 and 9. During my investigation, I asked several of the customers in these areas when they first started experiencing the 'black water' problem. Without exception, each consumer stated that is had only been 4 to 5 years ago and they then volunteered that is was at the time that the new wells nos. 8 and 9 were added to the system."

"Therefore, the water source from wells nos. 8 and 9 is highly suspect as being involved with the water quality problems in this area. At the very least, a detailed study of these wells should be performed. If a single packed tower aeration unit at these wells could solve the water quality problem, the cost would only be a fraction of the estimates which the utility's study concluded for the entire system." (Tr. 868/1 - 869/2) Mr. Watford, expressed the belief that "... the scientific evidence would indicate that the frequency of copper corrosion in customers' homes should be reduced substantially as a result of our now having optimized our corrosion control program." (Tr. 740/6-8) That was clearly wrong. The customers' haven't experienced any reduction of copper corrosion. Anyone who attended the hearings or read the transcript of the customers' testimony knows that this is not so. Whatever else it may have done, control of copper corrosion is not among them.

Mr. LeRoy said, "... it is very difficult for a utility to control the chlorine input into a system when they have their contaminant fluctuating." (Tr.726/19-21) The result of Aloha's failure to control chlorine may be that "...some hydrogen sulfide will slip through." (Tr.726/25) The Sarah Jacobs study found that even small amounts of hydrogen sulfide could cause problems. In reference to a Florida utility where some customers experienced copper pipes that "...contained a thick coat of soft, mushy, black scale..." it was noted that "This utility typically removed sulfides to below detection levels (<0.2 mg/L) by aeration. However, because even brief exposure to low concentrations of sulfides can induce long-term copper corrosion, sulfide removal techniques must be extraordinarily consistent and efficient to be successful. It is possible that this utility's aeration system did not completely remove sulfides from the raw water all the time." (SGW-1, pg. 8)

Aloha continues to blame the customers for the black water. Mr. Watford stated, "... there are several other factors that contribute to the occurrence of copper sulfide in a customer's water. Among the most important of these is the use of home treatment units, which many of Aloha's customers were using and continue to utilize. These home treatment units strip off the corrosion inhibitor which Aloha is injecting into the water and also strip off chlorine." (Tr. 738/6-10) It is perfectly reasonable and rational to "strip off chlorine" when chlorine smell "... reeks through the whole house when you put on the water." (Sessa, 230/17-20) Aloha should not complain when the customers attempt to control a problem that has been caused by Aloha's failure to properly control chlorine. Normal ion exchange based water softeners do not remove chlorine. However "... activated carbon filters...will strip the chlorine out." (Tr.720/1-4) Additionally, water softeners are an appropriate response to the moderately hard water (Tr. 870/11-12) that Aloha supplies. Mr. Watford's claim that the water softeners remove the corrosion inhibitor are contradicted by the results of a study undertaken by the Florida Rural Water Association at the request of the Florida Department of Environmental Protection. This study investigated the actual experience of 35 Aloha customers. The study's conclusions were:

"The results of the study are inconclusive and mixed. None of the potential remedies seemed to have any lasting effect on the black water and odor problem. The presence or absence of water conditioning units in the homes appeared to have no effect on the generation of the hydrogen sulfide and the subsequent reaction with the copper pipes. The water conditioning units did not remove the orthophosphate from the water that was being added by the utility to inhibit copper corrosion. This had been a concern of the utility." (Emphasis added) (Exhibt MDL-1, pg.13 – The Pasco County Black Water Study) Mr. LeRoy later stated that "...what I really want to say is that the water conditioning units, whether they were in-line or weren't in-line, from the data, we could not see whether it was an effect." (Tr. 679/15-18)

Mr. LeRoy, the DEP engineer who was the author of the Pasco County Black Water Study, (Tr. 664/6-11) stated that "I would not – I would not go and recommend, as the utility has done, for people to take their water softeners off-line. I don't really think that once that corrosion is started, taking it off-line is going to do anything for them." (Tr. 684/9-13) The water softeners may eliminate calcium from the water. Removal of calcium could restrict the ability of the orthophosphate from laying "... down the protective film. This is probably true. But what I'm saying is even if the calcium were there, operating with the orthopsphate laying down this film, I'm not sure what effect the sulfides would have on that. It may interfere to such a point that it wouldn't lay down a good one anyway. Because, as you mentioned, it is already appearing in people that don't have water softeners. So we don't know. And there is this one study, the Sarah Jacobs Study, on that. And water softeners never entered into her study at all. There is no knowledge of this." (Tr. 683/13-23)

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Mr. Biddy also testified that he did "... not know whether the soft water units make the water less or more aggressive to copper pipes. It is obvious that the copper pipes are being eaten up by something, I simply don't know." (Tr. 944/14-17) The Black Water Study did not find anything that would have a "... lasting effect that we could recommend to customers that they could do themselves or have cheaply done." (Tr. 668/19-20) Mr. Biddy stated "... I did not prove the cause of the black water problem. I think there is something in the Aloha water that is causing some of this problem other than hydrogen sulfide, although hydrogen sulfide may well be a major problem with the black water." (Tr. 887/15-21) Aloha's confidence that it has found the solution to the customers' corrosion problems is not supported by the current state of the science. There are too many unknown factors. Additional testing and evaluation of cost effective solutions is required.

When Mr. LeRoy was asked whether he agreed with the conclusions of a study published in Journal AWWA, Volume 90, Issue 7, July 1998, titled, "Sulfide Induced Copper Corrosion." Mr. LeRoy said "Basically, yes. Realizing that the study was done under controlled conditions and that the results may not be similar to this case. I agree, however, that there is a problem with Hydrogen Sulfide reacting with some copper pipes as pointed out in the study." (Tr.656/23 – 657/1) Mr. LeRoy further noted in reference to the study that deionized water with a very low pH and a very high pH were used. He said "Neither of the pHs are typical of the waters that we have. Deionized water is not typical. She has quite a few conclusions. She raises quite a few issues that are very interesting, and that will require a future research. . . . I basically do agree with most of it. But I just caution taking it as being a Bible. It is the only known piece of research I know as to the effects of hydrogen sulfide on copper. And I think there is more research that needs to be done." (Tr. 660/3-11)

Packed tower aeration is often used in Florida to help control hydrogen sulfide. There are "1,236 water plants in the State of Florida that already use aeration...." (Tr. 685/15-16) Certainly aeration is a frequently used method in the State of Florida to control hydrogen sulfide. However, it is not the only method. It may not be the most cost effective method to be used in this case. Mr. Biddy referenced "...a paper from Wilkes University, which had a very good treatment of oxidizing pressure filters to take out hydrogen sulfide from well water." (Tr. 886/24 - 887/1) Mr. Biddy testified that he "... investigated methods available for removing the sulfides and sulfate from the well water and the cost of these facilities. I found that pressure filters would be by far the most cost effective method for sulfide and sulfate removal. The pressure filters are installed on line with the existing pressurized system and therefore do not require an additonal storage tank or high service pumping as packed tower aeration require. The pressure filters are said to remove all sulfides and sulfates and the cost for complete installation at a 500 gpm well would be about #225,000 to \$250,000. This cost is only about 25 percent of the cost of the packed tower installation cost at a 500 gpm well as contained in the 'Water Facilities Upgrade Study Report' as prepared by Aloha Utilities and attaced to Mr. Porter's Testimony as Exhibit DWP-1." (Tr. 875/17 - 876/4)

In a letter to Mr. Porter from Mr. Michael Morris, president of Pacific Keystone Technologies Incorporated, (Exhibit 25) Mr. Morris wrote that his company had "... 500 plants in operation ranging from 10 gpm to 10 MGD [10 MGD is approximately 6,944 gpm calculated as follows: 10MGD / (24 hours x 60 minutes) = 6944 gpm)]...we do a lot of iron, manganese, and hydrogen sulfide removal in groundwater sources. The successful removal of these contaminants requires an oxidation step prior to final filtration. Methods that are successsfully used to oxidize these contaminants are pre-chlorination, aeration, ozonation, potassium permanganate, hydrogen peroxide, as well as many others commercially available chemicals...Note: The hydrogen sulfide would require KmnO4, aeration, or ozonation prior to the oxidation reaction vessel. A air relief valve would allow the release of off gasses at the top of the oxidation reaction tank. . . . " An enclosed diagram of two 300 gpm pressure filters indicates that after the water leaves the oxidation contact tank it enters the filter bays for further treatment.

Mr. LeRoy said that, ". . . in the department, even though we do state that the water that Aloha has meets existing standards, we recognize that there is a problem there. There is an aesthetic problem that something needs to be done with." (Tr. 665/15-18)

In response to a series of questions from Commissioner Clark, regarding whether Aloha would be impacted by ". . . increasingly stringent requirements by 2003. . . .what will be the type of equipment that need to be installed?" (Tr.691/24-692/2); Mr. LeRoy replied that he was, ". . .not aware of anything that is coming that will directly impact Aloha." (Tr. 692/3-5); Commissioner Clark further inquired that, "What I was trying to explore was, is there going to be a time that packed aeration is going to be required anyway for other reasons?" To which Mr. LeRoy responded, "I don't know of anything else that would cause, at this time, would cause that." (Tr. 693/8-12)

In response to a question from Commssioner Jaber about black water coming out of the cold tap, Mr. LeRoy said, "It's more prevalent in the hot water. But I'm not at all surprised that somebody sees it in their cold water." (Tr. 701/20-22) Mr. LeRoy agreed with Commissioner Jaber's statement regarding hydrogen sulfide that, "So what Aloha is doing, then, is not effective, because they have got the conversion process. They don't have the removal process." (Tr. 707/19-21)

In searching for low cost solution to the blace water problem, the FDEP considered several options. "The Department recognizes that asking home owners to maintain their hot water heater temperatures at 160 F or greater is not practical from both safety and economical considerations. And, removing the sacrifical anodes will void the

hot water heater warranties. So, FRWA was asked to undertake a research project to determine if something else would be effective in controlling the bacterial growth. It was finally decided that FRWA should flush and disinfect the hot water heater and pipes, elevate the temperature of the water heaters for a few hours, and replace the magnesium anodes with aluminum anodes. The water purveyor in the area [Aloha] believed that home point-of-entry water conditiong devices might contribute to the problem, so FRWA was asked to disconnect the water softeners in some of the homes to be studied." (Exhibt MDL-1, pg.12 – The Pasco County Black Water Study)

Black water can result from contact by hydrogen sulfide with iron. Aloha has iron in a portion of its system. Mr. Watford testified in response to a question about customer testimony regarding the very dark water that comes from hydrants during flushing, that, "...a fire hydrant is...a deadend. From wherever it comes off the main up until he hydrant is a deaded pipe. It is only flowed, obviously, when that hydrant is opened. It is also normally -- well, at least in our case in all situations that I am aware of an iron pipe. It discolors because it is sitting in contact with iron, it is sitting in an iron pipe." (Tr. 842/18 - 843/6); "This black water does not originate in our homes. I have seen this terrible black water being flushed from fire hydrants. They come up and flush this black water into the street, it lays in the curb and the guy leaves it run until it finally clears up." (Forehand, 330/20-25); "The black, oily substance that is on my bathtub when it is drained is the same black oily substance if you went out and rubbed you finger around the Aloha hydrant. The same black substance you can find on every faucet if you run your finger in there." (Wood, 238/25 - 239/1-4); "H2S accelerates corrosion by reacting with the metallic ions to form nonprotective insoluble sulfides. It attacks iron,

steel, copper, and galvanized piping to form 'black water', even though oxygen is absent. An H2S attack is often complex, and its effects may begin immediately or may not become apparent for months and then become suddenly severe. . . "(Exhibt MDL-1, pg. 89 – The Pasco County Black Water Study, Appendix 3)

The use of chlorine in removal of hydrogen sulfiate must be closely monitored by utilities. "H2S is commonly removed partially by aeration and then completely by chlorination. Conventional aeration removes approximately one-third of the influent concentration of H2S. The remaining H2S is then typically oxidized by chlorine gas. Although this treatment scheme successfully removes H2S, chlorination produces potentially troublesome by-products. For example, the chlorination of H2S could produce elemental sulfur (So), resulting in black water (iron sulfide and/or copper sulfide) or excessive turbidity (greater than 1 NTU) in the finished water. Trihalomethanes resulting from the use of chlorine is another by-product of concern." (Exhibt MDL-1, pg. 91 – The Pasco County Black Water Study, Appendix 4)

The customers gave testimony that provides additional insight to the possible causes of the black water problem.

"This question about the copper pipes, that is another thing that, you know, it is just a complete fabrication. Copper pipes in a home, if they did cause the water to become contaminated, the utility would almost certainly require these homes to install backflow preventers like all businesses must have today. Because a water distribution system is a closed, sealed, protected system. There are no questionable connections allowed on a water distribution system without a backflow prevention device." (Corelli, 82/14-23)

In response to a question from Mr. McLean regarding his water, Mr. Hatsios said, "Sometimes it doesn't happen, okay, so it can be one day or two days that we will not have it, but it will be back." (Hatsios, 110/25-111/2)

"I have been told that if you have a water softener or reverse osmosis that is a lot of causing of our problems. I have been told that if you have a water softener it takes out the elements in the water which causes discoloration. Well, I have had a pipe leak before my water softener. And Chelsea Place has quite a few leaks in our pipes. And a lot of it is before the water softener, not after where it is claimed that the elements are taken out of the water." (Coogan, 179/8-16)

"We can go seven miles from our house to my son's house and we can drink the water and we can take a clean bath. Only seven miles. If we open two water spigots at the same time, say one in the kitchen and one in one of the bathrooms, we will get black water coming out of both. In the tub, if you let it run for awhile it does clear up somewhat You may think it is pretty clear so you will tun a bath. Walk away from it for a couple of minutes, though, come back and the bottom is black. Our nonskid bottom is almost black. It adheres to it and there is nothingin the world that can clean it." (King, 200/6-20)

Sometimes it would be good for a week or two and sometimes it would be atrocious. There was never any consistency." (Stein, 377/24-25 - 378/1-2)

"When we were closing our house and we had a walk-through, we turned on all of our faucets to find out if everything is draining fine, and we saw this black water. And we thought it was coming from the hot water heater. Before we signed to close for the house, we demanded the water heater changed, and they did. And that didn't solve the problem. There is black water coming out of, you know, the faucet outside." (Landas, 459/24-25; 460/1-2)

"But Specialty Exports conducted the formal chemical analysis of our water and hydrogen sulfide was zero the day they were. There was no odor. No odor. However, the free chlorine that was analyzed by them was 1.51 parts per million. This very high chlorine level overcame the odor positively. You couldn't smell anything. But, that quantity, 1.51 parts per million is equivalent to what you might find in a swimming pool, all right? The normal chlorine content I'm told is .1 or .2. This was 1.51." (Day, 60/4-13)

"We do have a water softener. Aloha did say that you should change the rod to an aluminum rod in the softener. We changed that, and no difference." (Caputo, 318/22-24)

"The toilet tanks. Number two that toilet tanks turn absolutely black inside. They are not copper, they are ceramic. The water sometimes has a very foul smell. Not always. Sometimes it just absolutely stinks." (Forehand, 330/2-5)

"My office was inundated with calls and letters from unhappy Aloha customers. Of course, there is no rhyme or reason to the black water incidence according to many. Day or night, summer or winter, the black water appears." (Fasano, 18/23-19/2)

"I have had three homes with PVC pipe in my development. They claim PVC is the answer. These people have a problem. They have smells, they have black water, and one has a fungus that he never had before." (Coogan, 180/5-9)

"Aloha has a number of wells. Apparently two of these wells were put in more recently than some of the others, okay. These two newest wells, it's seems as though about the time these two wells went in is when most of these problems started cropping up. And I think it somehow related to these two wells." (Forehand, 334/18-23)

"We had no black water over there (Veterans Village) at all, ever. Once in a great while we had a little bit of an odor. The same system. Why is the water so different where we live two miles south? (Bower, 355/20-24)

"The problem is the location of their wells. Their water has a very high tannic acid and hydrogen sulfide content." (Sebacher, 382/17-19)

"When I built in the early '90s, '92 I moved in , Aloha Water was very good. We had good pressure, not a problem with it. Then the pressure started going down, so they are going to switch wells. They are going to do us a favor. This is great. And they did. And when they switched the wells that is when the problems started. (Lipp, 452/24-25; 453/1-5)

"And they can continue to use the argument of the copper piping; but why are we not getting the same problem throughout this county, but only in the Aloha servicing area?" (Fasano, 24/10-13)

"I'm going to put in CPVC." (Hennessy, 429/12) "It won't improve our water quality, but we're hoping it will stop the leaks. Our carpet has been soaked many times now. We can't file another insurance policy for this. We have a child with allergies. And we are hoping that mildew doesn't grow under this carpeting now. We tear it up each time, we dry it out, we spray it with disinfectant. Once it dries we lay it back down." (Hennessy, 429/13-20)

"But these are two the pipes that the plumbers had to that replace. And the reason I have tissues in either end is because of all the black inside the pipes. These are the pipes that come right outside the meter before they go into house. And this is the ones that were leaking." (Rifkin, 468/12-17)

"I feel that our water problem really started when we were put on new well. I believe it was Well 8 and 9. I do believe personally, and too a lot of my neighbors that when 8 and 9 came into being our problems really started." (Coogan, 179/19-25)

"We moved into that house in August of 1994 and we have had water quality problems since moving in there." (Bagnato, 183/25; 184/1-2)

"....the residents of Chelsea Place have had an on-going serious problem with the quality of water delivered to their homes by Aloha Utilities. This problem has existed over the last five years without improving." (Bagnato, 184/13-17)

"Our homes have been built consistent with the codes established by the State of Florida and local municipal codes. Our homes were inspected and deemed to meet their codes. It is difficult for our residents to accept the premise that the water problem is in our homes when our homes are constructed under similar codes to that of our neighbors that Aloha reports does not suffer the water qualities. In view of this it is on the side of simple logic that there is something different about the water being delivered to our homes as compared to other homes of the Aloha customer base of similar construction." (Bagnato, 185/2-12)

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Respectfully Submitted,

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Attorneys for the Citizens of the State of Florida

CERTIFICATE OF SERVICE DOCKET NO. 960545-WS

I HEREBY CERTIFY that a copy of the foregoing has been furnished by U.S. Mail or hand-delivery to the following parties on this 19th day of May, 2000.

M. Presnell ephen

Ralph Jaegar Division of Legal Services Fla. Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 Marshall Deterding, Esq. Rose, Sundstrom & Bentley 2548 Blairstone Pines Drive Tallahassee, FL 32301

Representative Mike Fasano 8217 Massachusetts Avenue New Port Richey, FL 34653

DOCKET No. 960545-WS

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ATTACHMENT A

Florida Public Service Commission Hearing

CUSTOMER COMMENTS

- In response to a question from Mr. McLean regarding a sample that he had brought with him, Mr. Mitchell stated that it was, "...water that came out of my lavatory this morning in the bathroom." Mr. Mitchell described the water as, "...just black dirty water." (Mitchell, 90/24-91/2)
- Responsing to a question from Mr. McLean regarding water she had brought to the hearing, Ms. Avery said: "It is water that came out of the water tap. And if you would look at the bottom of it, it is black. And I won't drink it. Would you like a drink of it? And we have had blacker water than that." (Avery, 78/24-79/2)
- In response to a question from Mr. McLean regarding his water, Mr. Hatsios said, "Sometimes it doesn't happen, okay, so it can be one day or two days that we will not have it, but it will be back." (Hatsios, 110/25-111/2)
- "...when I open a tub faucet, if the water sits in there it is black." (Reis, 135/18-19)
- "The first thing I noticed after we purchased our house, was the black water. Even our ice cubes were black. For several weeks we went on a vacation, and when we came home we needed to run the black water out of the pipes. And it had such a terrible stench, even the sprinkler system had to be run." (Marinelli, 129/7-13)
- Response to Mr. Jaeger's question: "How would you describe the color of the water....? Mr. Hatsisos' reply was: "Something between black, brown, and gray. You can't see through it. It is not translucent. it is very bad." (Hatsisos, 112/16-21)
- Mr. Hatsisos on the color of the water, ".... we get our dishes stained black and we have to redo themIt can happen in the clothes. Of course we don't drink the water we buy water. We have to rinse sometimes even with purchased waterwe have visitors that are pleasantly surprised because they get black when they try to take a shower." (Hatsisos, 113/6-13)
- "I have been told that if you have a water softener or reverse osmosis that is a lot of causing of our problems. I have been told that if you have a water softener it takes out the elements in the water which causes discoloration. Well, I have had a pipe leak before my water softener. And Chelsea Place has quite a few leaks in our pipes. And a lot of it is before the water softener, not after where it is claimed that the elements are taken out of the water." (Coogan, 179/8-16)
- On survey that wat marked as Exhibit 9: "'The first question was rate the water color. We had one response was good, 14 fair, and 101 poor." (Bagnato, 186/8-9)

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• "We appeal to Aloha Utilities and the Florida Public Service Commission to review this condition in the light of your residing in a house that continually had poor tasting, smelly, discolored water that by any civilized standards is entirely unacceptable." (Bagnato, 194/1-5)

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- "We can go seven miles from our house to my son's house and we can drink the water and we can take a clean bath. Only seven miles. If we open two water spigots at the same time, say one in the kitchen and one in one of the bathrooms, we will get black water coming out of both. In the tub, if you let it run for awhile it does clear up somewhat. You may think it is pretty clear so you will run a bath. Walk away from it for a couple of minutes, though, come back and the bottom is black . Our nonskid bottom is almost black. It adheres to it and there is nothing in the world that can clean it." (King, 200/6-20)
- Ms. Pratt on water sample she brought from her house: "It's kind of a grayish color, but on the bottom - this has had time to settle, because I took this morning when I came. On the bottom are all these black things floating around in there. They settle out usually. We don't drink the water." (Pratt, 211/2-7)
- Ms. Pratt on neighbor's (Nancy and Kelly Glenn) sample she was asked to bring with her: "....they are black - kind of black lumps. Particulates, yeah. They are good-sized. They are not tiny like the ones in my water. These are good-sized ones." (Pratt, 211/17-20)
- "I have a house that was at that time four months old and I got black, dirty, filthy water." (Wood, 236/8-10)
- Mr. Wood on samples of water he brought with him: "I would say for color purposes the first one is dark black, the second one probably I would call dark gray, and the third one just plain black." (Wood, 237/6-9)
- On water problems, Mr. Hartinger states, ".... black, sooty, smelly water the likes of which I have never seen in my entire life. It makes us feel like we are living in a third world country where instead of filthy water running along the gutter, Aloha is running it through their system in to our homes." (Hartinger, 140/9-13)
- "You're welcome. So for over 2000 years copper has been used in various ways, including brewing beer, and I have never heard of black beer. I've lived in Florida for the last ten years, Miami mainly, never had a problem with my copper pipes. They have a problem here. And I just have one question in closing. If Aloha deems the problem to be caused by copper pipes within the residences, why is it they are constantly flushing their mains out in front of my house, sometimes for 20 minutes at a

time, at least two or three times a month clearing out the mains. They are not in the house. And that question has never really been answered. Thank you." (Clayton, 295/23-25; 296/1-10)

- "And this water I got today out of my bathtub at about 5:00 o'clock. I went home from work and I ran the water. It came out clear for a couple of minutes. And I waited for another minute or two and it started running and suddenly, poof, there it came. And it is like mud." (Williams, 308/10-15)
- "It looks like tea, ice tea. You know, dark muddy water." (Fawcett, 312/13-14)
- "November of last year, which was '99, we moved into Wyndgate in a newly constructed home. We get dirty water in our guest bath. Coming here today, I drained water out of my hot water heater. This is what I received. Now, to describe it, I would say it looks like liquid tar. That's about all I can describe." (Wortz, 324/21-25; 325/1)
- "And when you let it settle one day I put some in a jar, because it happened many times. And one day I put some in a jar, and I said, "Well, I've got to take this to somebody." And when it settled in the bottom it definitely was black. It was not brown, it was not muddy, it was B-L-A-C-K." (Mann, 341/1-6)
- "I guess if I had to describe our water, gray, cloudy, sometimes a little bit darker. I know this doesn't describe it, but gray and cloudy." (Horne, 359/15-17)
- "My wife Linda and I purchased this house around Labor Day of 1999. Within two weeks we discovered some serious discoloration of the water. The gentleman has been describing it as shadowy gray, I think that is appropriate. (McCloskey, 360/23-25; 316/1-2)
- "Sometimes it would be good for a week or two and sometimes it would be atrocious. There was never any consistency." (Stein, 377/24-25; 378/1-2)
- "The water that is used in the rest of the house for bathing and the like goes through a whole house filter, which is installed just as the comes in to the house, and then that water also goes through the water softener. The water resulting from those two filtrations is the color that you see in this jug, approximately the color of Coca-cola....and it is almost always, and unfortunately in our shower, too, the smell of rotten eggs. It is a definite hydrogen sulfide odor. (Sebacher, 381/4-16)
- "Now you also want to know about Steve Vinto? Steve Vinto's house is on the other side of the pond from my house. He doesn't have black water no more because they

changed all of his pipes. Now he has yellow, orange, dirty, smelling water." (Rifkin, 419/7-11)

- "We also brought in a sample we took tonight of our water from our master bathroom, which is a brownish color. And there is some sediment at the bottom at this point in time." (Hennessy, 423/12-15)
- "This is the water from our house tonight. If I shake it up and get that sediment, you can see the chunks floating around in there. In fact, when you take ice cubes out of the tray, the ice cubes have chunks of that black in them. So you can have a water filter system to get drinking water, but if you use ice cubes that's what you get." (Corona, 438/14-20)
- "Our water is pitch black. It is disgusting." (Nigels, 444/6-7)
- "We found two things about Aloha Water; one was that it was very poor water. It would be various shades of black and gray, and has been that way all along." (Mooney, 446/14-16)
- "When we were closing our house and we had a walk-through, we turned on all of our faucets to find out if everything is draining fine, and we saw this black water. And we thought it was coming from the hot water heater. Before we signed to close for the house, we demanded the water heater changed, and they did. And that didn't solve the problem. There is black water coming out of, you know, the faucet outside." (Landas, 459/24-25; 460/1-2)
- "...I have lived in my residence since October of 1995 and have had problems with the water from Aloha since day one. The water comes out from the faucet black with the smell of rotten eggs ... I wouldn't think of using this water for drinking purposes. I have complained to Aloha time after time and they have the excuse after excuse. They say the problem is due to copper pipes. I don't have copper pipes in my house..." (Mike Fasano reading James Finnegan's letter, 25/5-16)
- Ms. Reis stating what husband said in Exhibit 3, "It says dark and dirty water continues. Smelly and undrinkable. Impossible water conditions continue. We are forced to buy bottled water for drinking." (Reis, 137/3-6)
- On Mr. Deterding's question as to whether Mr. Sharkey received consumer confidence report from Aloha: "I can answer you this way. If Aloha has sent me anything pertaining or asking questions regarding the quality of their water, I could assure you that I answered it, and I answered it that their water stinks." (Sharkey, 172/8-15)

- On Mr. Jaegar's question, "...you talked about having to open the door and step out while the water was running because the smell was so bad. Is that that rotten egg or sulfur smell?" Ms.Pratt's reply was, "That is that rotten egg/sulfur smell; yes, sir." (Pratt, 214/9-14)
- "We do have occasional cloudy water. We have smelly, stinky water." (Bouse, 365/13-14)
- "You can smell the chlorine in it." (Stein, 372/13)
- "Sometimes it is the sulfur rotten, sometimes it is just a moldy, misty, kind of foulness that you really don't want to get involved with. I mean, you are pouring this right out of the tap." (Clayton, 306/9-12)
- "We first turned on the hot water and we had a bad smell and we thought, gee, I hope this doesn't remain." (Williams, 307/21-22)
- "I try to leave the room because the smell is so bad it actually could almost turn your stomach." (Pratt, 209/3-5)
- "...we have to get up every morning and see that water and smell that water and be revolted by it." (Sessa, 227/18-19)
- "...in a shower enclosure when the water is coming out real fast you get a fairly heavy sulfirric kind of odor." (Crean, 276/11-12)
- "...And sometimes when Aloha's technicians came out and tested it they found the same thing. Sometimes they found zero chlorine and sometimes it was almost 2 parts per million." (Mitchell, 92/11-14)
- "Being in the plumbing industry for my complete working career, I also have access to different water filters and water kits. And I do have some of my own chlorine test kits that are not swimming pool test kits, they are commercial type. And I have tested my water several different times. Sometimes it tests like it is safe to swim in. Sometimes, again, it has zero chlorine." (Mitchell, 90/9-15)
- "And this five-year-old water softener was no longer functioning because the medium other than the salt that apparently softens the water became contaminated by the chlorine." (Crean, 275/5-8)

- In response to Mr. Deterding's question, "You're saying it has got high chlorine?" Ms. Sessa answered, "Yes, you can smell it. It reeks through the whole house when you put on the water." (Sessa, 230/17-20)
- "The water smell we have had, we don't really have the bog smell, the swamp water smell as much as we have every once in awhile an extreme chlorine smell." (Corona, 439/18-20)
- "But Specialty Exports conducted the formal chemical analysis of our water and hydrogen sulfide was zero the day they were. There was no odor. No odor. However, the free chlorine that was analyzed by them was 1.51 parts per million. This very high chlorine level overcame the odor positively. You couldn't smell anything. But, that quantity, 1.51 parts per million is equivalent to what you might find in a swimming pool, all right? The normal chlorine content I'm told is . I or .2. This was 1. 5 1. " (Day, 60/4-13)
- "Number 10. This is all from a private utility owner, who as I read in the paper, lent themselves some money at a 12 percent interest rate. I wish I could get 12 percent guaranteed on my returns. Mine aren't that good.And this is all from a private utility that hires family members for part-time jobs at over \$100,000 a year salary." (Forehand, 332/14-21)
- "...The franchise monopoly situation totally eliminates customer service, and Aloha is particularly arrogant when it comes to this issue." (Day, 64/17-19)
- "I came here two and a half years ago ... We do not drink the water. Sometimes we are afraid to bathe in the water. We purchase water." (Hatsios, 107/12-16)
- "I don' t cook with it, we don't drink It. We buy bottled water" (Reis, 135/15-16)
- On survey that was marked as Exhibit 9: "Rate the water taste. We had one good response, six fair, and 51 poor. The reason for the small turnout on that, 58, was the fact that many haven't tasted their water in a long time because they have been using either bottled water or some substitute." (Bagnato, 186/12-17)
- On Aloha's water Mr. Oberg states, "We can't use ours. We don't drink it, we don't cook with it." (Oberg, 264, 8-9)
- "We won't drink the water. We use it for cooking, however. And so what we do is we put it through a Brita Filter. As you know, a Brita filter is a little one gallon jug that has got a nice white filter in it, and probably ones a week when we are filling this Brita we get this black, gray flush comes through, and it goes away, so we dump it out

and flush everything out and start over. We go ahead and fill it up then. This is probably once a week this happens." (Forehand, 329/18-25; 330/1)

- "And so we finally installed a reverse osmosis unit that takes care of the water for the faucet that is in the kitchen and also in our refrigerator so that we have both ice and chilled drinking water from the reverse osmosis unit." (Mooney, 448/6-10)
- "Since then, in order to get water that we felt we could drink, we have installed a fivestage reverse osmosis system. And behind that I have another carbon filter, and this is the water we drink and make rather decent coffee from." (Sebacher, 380/24-25; 381/1-3)
- "I think it is that Kinetco water. And we had reverse osmosis, too." (Landas, 461/23-24)
- When describing photograph exhibits she brought to the hearing Ms. Drew stated, "... my daughter was horrified when she came to visit ... This black down here is the sediment from the bottom of the bathtub after the water drained out. These are some deposits from the faucet in the kitchen and each bathroom. And this final deposit from the water tank in each bathroom. There is a sediment in the bottomn of these filter holders ... The water doesn't smell good, either..." (Drew, 104/11-19)
- "The black, oily substance that is on my bathtub when it is drained is the same black oily substance if you went out and rubbed you finger around the Aloha hydrant. The same black substance you can find on every faucet if you run your finger in there." (Wood, 238/25; 239/1-4)
- "I have severe osteoporosis fibromayalgia. The doctor says take a bath. I laugh in his face. I can't go in that mud. I cried. I had acute anterior wall myocardial infarction and I'm not supposed to get upset, but literally every time I clean the bathtub I cry. I got mud in there all the way to the end of the tub..."(Dhans, 261/14-19)
- "And when it comes to washing clothes, my wife complains because the clothes turn gray." (Oberg, 264,11-12)
- "There have been occasions my wife turned the bathroom faucet on to brush her teeth and put the toothbrush underneath and it got so black the toothbrush went in the garbage and it's time to get another one." (Caputo, 320/7-10)
- "About nine months ago we had black water in the tub, that is the only time we have ever had the black water in the tub where it was so black that we could run our finger on it and see it." (Wickett, 323/12-15)

- "This is my water from my master bathtub that was taken this morning. When I got pregnant in '96, my husband decided we needed a water softener because of this, and I just – nothing has helped. We had the water softener installed in November '97, that didn't help. We had a filter installed under our sink. That didn't help. I have my son take a shower with me because at least you can't see the filth. When I want to take a bath, I have to literally run the tub for 20 minutes then wait for the hot water to hopefully come back and then rerun the tub, and then clean the tub, and then wait for the hot water to come back again so I can at least have hot water to take a bath. And it is just – it's ridiculous." (Nigels, 442/10-23)
- "I have had the chunks I forgot to wear it, but I have chunks of black on like five of my shirts. I had no clue what they came from, and it is from our washing machine. We have had to snake our bathroom sink that we use every day. And when my husband takes the drain out, if you get the sludge part on the porcelain sink you can't get it off. The house is brand new. This shouldn't be happening. And whether it is copper pipes or not, I just can't see how Aloha Utilities can be in business. I have never seen anything like this before in my life." (Nigels, 443/12-22)
- "Last week my cold water in my washer, you know, it is doesn't have as much pressure as my hot water, so I pulled – I pulled the rubbery tube off from the wall and there is a lot of black sediment that is clogging the pipe. I mean, the screen filter coming into the --." (Landas, 463/8-13)
- "Before it goes through my salt water conditioner, you can smell how much chlorine there is in there." (Landas, 466/7-8)
- No, I do not have filters at all. I buy bottled water. And I cook with bottled water. And I have even rinsed off with bottled water when the water come out so black in the shower and the bathtub. I have taken bottled water and rinsed it off myself because that water is so rotten and stinking... " (Avery, 80/6-11)
- On survey that was marked as Exhibit 9: "Our eighth question was do you drink the water from the tap. Seven people said yes, 104 said no. Which you can readily see that a lot of people are buying bottled water, or they have reverse osmosis, or such as that." (Bagnato, 187/12-16)
- "...when I moved in five or six months ago, we were paying approximately \$30. But now that I have to really drink water, bottled water, we cook with bottled water, my water bill is really about \$75 a month." (Eustice, 219/21-25)

- "If I just buy drinking water, then I would say I should get a rebate on my water bill from Aloha of about \$300 a year, because that is what it costs for a family of two just for drinking water at your local Publix supermarket." (Wood, 238/6-10)
- "Lately we have gone to that spring up there where they pump it out for 25 cents a gallon, and we use probably four gallons a day roughly. Before that we used to buy water for more than 25 cents, believe me." (Oberg, 269/13-18)
- "...I got this water this morning because to show you that the water is getting worse, it's not getting any better." (Hatsios, 107/18-20)
- "Those problems were many and varied. From relatively simple complaints of low water pressure to horrendous reports of black foul-smelling water gushing from taps." (Fasano, 18/20-22)
- "To the third-world countries, the other countries in the world in which I have visited, I haven't seen anything like what we have from Aloha." (Wood, 236/11-13)
- "The south branck of the Chicago River is cleaner that Aloha's water, and that is a garbage pit. I lived in Cleveland when Lake Erie was officially declared dead. And we never got water or service like we get form Aloha. In Michigan we had good, clean, pure water." (Wood, 236/14-18)
- "...The technology center is the showplace for Welbilt Corporation and all of our customers. You can imagine our embarrassment with the foul odor caused by the hydrogen sulfide levels in the water supplied by Aloha..." (Day, 58/13-17)
- "You know, whenever we have guests, we pray. We pray that they shower and not take a bath. Because when you shower the black water doesn't show up quite as well. It is just very, very embarrassing. One of the things you have to tell your guests is, every time, you may experience some black water. Well, what does that mean, can we drink it? No, you can't drink it. We don't drink our water." (Bower, 352/17-24)
- "In addition to the odor, we have experienced milky water and now the water softener and the water heaters don't work normally..." (Day, 59/2-4)
- Mr. King on replacing charcoal filter, "It is supposed to last about six month, but I change it about every two or three weeks. The cost, you get two of them for \$8." (King, 206/17-24)
- "...my son-in-law installed a water softener..... A year ago he put in a reverse osmosis undemeath our sink, so we do have those two things." (Pratt, 211/8-12)

- "I do have a water softener. I also have a dual filtration system under the sink I had just changed the filters for the second time, the dual filters under the sink. And I paid almost 25 for the one, and I think 15 for the other one, \$40 bor both." (Eustice, 221/10-18)
- "...we have spent about \$2,000 in water softeners and state of the art RO systems. We don't cook or wash vegetables or drink with the water from the tap, we use the RO system water." (Murphy, 258/23-25)
- "Close to half a million dollars has been spent in Trinity Oaks in trying to get acceptable water and we still are having problems with this." (Murphy, 259/6-8)
- Mr. Crean on water softener, "It had been installed in 1995. I saw the the prior owner had saved all of the receipts for everything. This was around \$2000." (Crean, 275/2-4)
- "We do have a water softener. Aloha did say that you should change the rod to an aluminum rod in the softener. We changed that, and no difference." (Caputo, 318/22-24)
- "At the time we purchased the home there is what is referred to as a complete house filtration system and a water softener. We have since installed I believe it is called an osmosis system at the kitchen sink, which is the only tap from which we will drink." (McCloskey, 364/13-18)
- "We have a Kinetco water filtration system on our house. We have whatever everyone calls with the osmosis in the kitchen sink. I have schlepped bottled water from the grocery store for a long time. Even with this, we had our water softener checked to make sure it was functioning properly and everything was good. It recirculates on its own." (Donaldson, 404/18-24)
- "No, this is something that we had let me see, did we add the kitchen filtration system after the last meeting? Yes, we did. The one in the kitchen for our drinking water and our cooking water we did add after the last meeting." (Corona, 436/5-9)
- "We have a filter on our water under the sink. It is just a double carbon filter, and then after that I stick it into one of those 2-gallon filtered – I will actually take that filtered water and I pour it into another filter and put it in my refrigerator. And the only time I can even drink that is if it is cold. And I buy ice from the store." (Nigels, 444/15-21)

- "The first thing that we did was to install a water softener, which we have had in our previous homes." (Mooney, 447/12-13)
- I had told Mr. Watford before he entered that the previous day I had flushed my system. I had chlorinated my hot water tank. And I spent 40 bucks to get a plumber out to cut the water tank so I could get into it and make it a permanent thing that I could do in the future." (Wood, 251/11-16)
- "And to quote the gentleman, when he removed the old anode rod, 'Oh, my god.' He explained to me, and, again, please don't hold me to this, but the diameter of a typical anode rod should be somewhere equivalent to the diameter of a nickel, or of a dime, a quarter, somewhere in that vicinity. This is the anode rod that he removed from a hot water tank that was installed brand new in October of 1991. And it is probably the diameter of the lead that would be in a number two pencil." (McCloskey, 361/16-25)
- "I would also suggest that the communities of Wyndtree, Chelsea Place, Veterans Village, and the like that were built in this same time frame were not the only homes that were built in Pasco County or in Pinellas County. Why aren't these same problems existing with the copper plumbing in those homes?" (McCloskey, 363/9-14)
- "I went into the house the other night and turned on all the water in all the spigots, shut off the water heater, drained everything completely. Started it up again and it did help." (Bouse, 366/6-9)
- "And Kilty Plumbing (phonetic), the plumber told me that is dirty black Aloha water you are using, no wonder you've got holes in your pipes. He said I already changed seven pipes around this neighborhood already. Everybody is having problems in our neighborhood with copper tubing. All of a sudden they all start leaking. We have two or three of them that are real bad." (Rifkin, 418/24-25; 419/1-6)
- The toilet closets are so filthy dirty that you think somebody come in poured mud." (Wood, 236/19-25)
- "Excuse me, I would just like to add one final note, that this water has permanently stained all of our porcelain toilets. And it is very difficult, if impossible to clean them." (Clayton, 297/10-13)
- "I have tried everything. We have tried pure Clorox, industrial Clorox, we have tried Rustaid (phonetic), we have tried every conceivable – scrubbing, soaking overnight, using tablets in the commode to try to flush it out." (Clayton, 297/14-18)

- Ms. Clayton on water after installing a NASA system to try and correct the problem. "We moved into our house on April 30th six years ago, '94, and my husband insisted on putting it in because of the odor and the color, and it stained immediately. It stained the chrome on your water, you know, your hot water taps, your faucets, it stained that permanently. We have clear shower doors, glass, and it stained those." (Clayton, 302/24-25; 303/1-5)
- "We have been in this house now for a little better than six years and we have replaced the water heater because the anode rod was completely dissipated." (Sebacher, 381/23-25; 382/1)
- "My daughter had a little baby three years ago. One of the presents she got was a beautiful little -excuse me a beaubeautiful little baby blanket set. And as my daughter has always done, she washes the baby's clothes before she uses them. And this is the way this beautiful white baby blanket came out washing machine. And these are not tea stains. It came out with holes and it came out stained." (Pratt, 209/17-24)
- "I turn it on in the tube that is in our laundry room, and I let it run until I think it is almost clear before I start doing my laundry. When we first started, your white sheet were always gray because the water would be coming out, you never knew if it was going to be brown or what." (Pratt,210/6-1 1)
- "We moved into that house in October of '93......We lived there about six months, and the sink and the clothes that came out of the washing machine started turning yellow, and the water itself, of course, was a yellowish cast. And so we said, well, maybe the builder was right. So we installed a Kinetco water softener." (Sebacher, 380/13-23)
- "We have experienced what I called and named sludge hunks in our washing machine." (Donaldson, 407/3-4)
- "And while we were there for his transplant, the outside water line we had to have it repaired. And this is the water coming from Aloha's line into the house. We have replaced numerous water flippers in each bathroom. I don't even serve this water to my fliends. I buy bottled water. I don't cook with it. It stinks. And we didn't think to save how many times we have had to change the flippers in the bathrooms. The water in the water tanks in the bathroom, they are gritted with black stuff." (Avery, 77/18-78/1)

- "And in my toilet I found that they had like a half-inch of sand, the same kind of muddy black water/sand at the bottom of the bowl, the tank rather, and also in the bowl. And I couldn't believe in this day and age that we see this kind of water and this kind of quality." (Williams, 308/19-23)
- "The master tub, we turn the water on for that, it comes out black." (Fawcett, 312/17-19)
- "The toilet tanks. Number two that toilet tanks turn absolutely black inside. They are not copper, they are ceramic. The water sometimes has a very foul smell. Not always. Sometimes it just absolutely stinks." (Forehand, 330/2-5)
- "You can open up my toilet at any given time, the back part of the toilet, and there is black slimy stuff in it. And we all know it is from the water." (Stein, 378/18-21)
- "Black water in toilet tanks, black sludge, which is what I call it evident, discolored smelly water exuding from faucets not used daily are big problems and they belong to Aloha, the provider." (Donaldson, 406/17-20)
- "Our bathtub. We don't use the bathtub. We shower. I can't stand using the bathtub. Every time I try to fill the bathtub we get the dirty water, and I'm tired, forget it, I will take a shower. So in almost four years that we have lived there, I have taken maybe five baths in our garden tub. So it is -- the black water is mostly in the areas not used as often." (Hennessy, 426/13-19)
- "We do have to flush out before my kids take a bath or a shower, we have to let our lines run. It's only on the hot side. I haven't seen any blackish, brown water from my cold side.So when we run the kids bath, we don't run just the hot water, we have to make sure it is lukewarm when we start it, otherwise it will turn black on them." (Hennessy, 427/1-8)
- "Just like everybody said tonight, the toilet tanks, you can open it up and you can take your finger and basically dig a little trench at the bottom of it. The bath water comes out, at times it is black like that, at times it is kind of like that. The sink water is the same. If you put on too many faucets at the same time it all comes out like that, black." (Corona, 432/24-25; 433/1-5)
- "And just like everyone has said, it is in our toilets. We have the filter on our frig, and the ice cube tray, it's the automatic ice. But I dump the ice constantly, and it's just a black film. And you can't even get it off. It's like you have to - and we tried Clorox to get it off, I can't even use bleach." (Nigels, 443/6-11)

- On a survey that was marked as Exhibit 9: "We had a question about pinholes, recognizing that chemicals in the water deteriorate piping. We had 19 response of pinholes for a total of 34 pinholes. Many of these pinholes were before the water entered the house; that is, as soon as they came into your shutoff before they went to any water conditioner or any other appliance before going into the house." (Bagnato, 187/5-11)
- On survey which was marked Exhibit 9: "One gentleman has seven pinholes. Most of them had one pinhole. And these pinholes were very fine holes and would let out a spray of water. Some had them in their living room where they did \$2,000 or \$3,000 worth of damage." (Bagnato, 192/21-25)
- On pinhole damage: "I talked to Charlie Rifkin (phonetic), for example. Charlie Rifkin's was in the living room, and it was something like \$3,000 damage. The gentleman that had seven, they were all over the place." (Bagnato, 193/15-19)
- "The first two leaks we filed with our homeowner's insurance, we had a \$500 deductible each time because of carpeting ruined, wallpaper ruined from knocking holes in walls. Our policy came up for renewal just a few months later, and we no longer qualify to have our homeowners there. So now our homeowner's rate – we are with a new company, but the rates went higher, so we don't dare with each of these leaks file a claim. Our last one was just outside, and we just lost two of our hedges. My husband went out and dug up the ground himself." (Hennessy, 425/4-14)
- "Frequently in the morning I will go out to get the paper. And when I get out and check around, my water sprinkler is on, hasn't popped up, I go over and check and the pressure is low. I mean, really low. Neighbors have commented on it in their showers. I have personally experienced it. And heaven forbid if there were a fire in my neighbor's home or my home it would be an absolute disaster at that particular time when the water pressure is that low. It is unconscionable in my mind." (Day, 62/2-10)
- "Number 8, the pressure is very low, particularly on watering days. We are restricted to watering on just one day now. And I look out while we are watering and I see the sprinklers just blub, blub, blub. I can't even get enough water out on that one day. I don't know what the fire department is going to do if they have got to come out and put a fire out on these water restricted days." (Forehand, 331/16-23)
- "We lived in Park Lake Estates, and there we called Aloha several times. Because there we lived at the third house from the end of a line before they opened up Trouble Creek Road. We had no water pressure on days that you water lawns. You couldn't even pop a sprinkler head." (Bouse, 367/20-25)

- "We had cloudy water we had smelly water. We called them, complained about the pressure. They would always come out on a Thursday or Friday at noontime when nobody was watering and then check the pressure. Never one time did they come out during the time that the waters were running." (Bouse, 368/2-7)
- "Low pressure, yes, we definitely have a low pressure problem." (Corona, 440/9-10)
- "The low water pressure is there all the time. I haven't noticed any particular time." (Pratt, 214/15-17)
- "Very low pressure when you turn one faucet on. When you use the bathroom the kitchen goes down. You go to use the washing machine and almost no water comes out of the bathroom." (Eustice, 217/9-12)
- "The pressure is low." (Landas, 466/19)
- "...I would like to address for moment this fire hydrant that we have heard so much about today. I am a retired New York City firefighter and a retired Pasco County Utility Inspector. So I think I'm qualified to talk about fire hydrants. Now, this fire hydrant that Mr. Deterding questioned Mr. Fasano at length about, when it was opened a tremendous amount of dirty water came out. Now, I have opened many, many fire hydrants. The amount of water that came out of that fire hydrant that was so dirty, if a fire engine had to connect to it to put out a fire it very possibly would have fouled up the pumps, that is how bad it was." (Corelli, 81/8-20)
- I question whether or not we have enough pressure to put out a fire when everyone is sprinkling, especially with the ban." (Murphy, 259/9-12)
- "...day in and out they have been out there opening up the fire hydrants trying to clear the water so people couldn't bring their dirty, smelly, rotten water today, but it hasn't worked. And what is amazing is we have a water shortage problem in this county and throughout the state, and they are wasting thousands and thousands of gallons each day when they go out there and open up those hydrants." (Fasano, 23/13-20)
- "Not necessarily five running days in a row. However it could be on the second day they flush them like crazy outside, they wash away our grass. We scream at them and tell them to put it down the drain, we pay for that, too. And it could be once a month, it could be three times a month, it could be 20 times." (Clayton, 300/5-10)
- "November of last year, which was '99, we moved into Wyndgate in a newly constructed home. We get dirty water in our guest bath. Coming here today, I

drained water out of my hot water heater. This is what I received. Now, to describe it, I would say it looks like liquid tar. That's about all I can describe." (Wortz, 324/21-25; 325/1)

- "....explain to mewhy Aloha is dumping thousands of gallons of water from the fire hydrants, especially during a drought alert. Strangely enough, the average homeowner is being threatened with fines if we water our lawn." (Martinelli, 129/18-24)
- "I question whether or not we have enough pressure to put out a fire when everyone is sprinkling, especially with the ban." (Murphy, 259/9-12)
- "When the water is not used for awhile when we are aware for a few days, we have to flush all the water in the house. It is wasting a lot of water when we have to do this. But, we have an emergency water restriction here and we have to waste the water anyhow. Pasco, by the way, is in the center of an emergency water situation. And I feel badly about wasting all of this water, but I'm sure not going to shower in it when it has got this gray – I haven't seen mine this bad, but it is like this." (Forehand, 330/10-19)
- "This black water does not originate in our homes. I have seen this terrible black water being flushed from fire hydrants. They come up and flush this black water into the street, it lays in the curb and the guy leaves it run until it finally clears up." (Forehand, 330/20-25)
- "Yes, flushing of these fire hydrants is sure wasting a lot of the water during these times of emergency water restrictions that we are under. I can't wash my car. But Aloha can come out, because they don't provide good quality water, and flush their fire hydrants trying to make them not look so black all over the neighborhood." (Forehand, 331/10-15)
- "Many times I called Mr. Watley (phonetic) and complained about our water. They would send somebody out and they would flush the lines from the house. Nothing would change. I had complained many times. I was present in'96 at the last meeting that we had in Manor Care (phonetic). I think the consensus that night or day was that copper plumbing was causing the problem. After that nothing happened. I stopped complaining because it didn't do any good." (Reis, 134/6-14)
- On interviewing people for survey that was marked Exhibit 9: "...most people said that Aloha responded very quickly to the complaint, and the people were courteous, they came there, but they had no improvement in their water." (Bagnato, 192/8-11)

- On survey that was marked Exhibit 9: "Question Number 5, if you filed complaints, how many were there. We had a total of 289 complaints, which averaged about four complaints per person. One person had 25 complaints listed. The sixth question of your complaints, were they satisfactory responses. Three people said their responses were good, 70 said fair.I'm sorry, complaint satisfaction, three said yes, they were satisfied, 70 said no" (Bagnato, 186/21-25; 187/1-4)
- "Now, I'm sure a lot of people here remember Doctor Garrity, the former head of the DEP, he told us he would not drink the water. Now, we didn't get any help because of it, but we won't drink the water, either." (Forehand, 330/6-9)
- "The only logical explanation for not deeming acceptable water quality to be absolutely required of a utility company can only be power and money. Pretty lame excuses and certainly morally unacceptable. Aloha has skirted by without any accountability for too long. It is inexcusable, irresponsible, and never should be legally tolerated." (Donaldson, 405/4-10)
- "And they have been given the information years ago and are refusing to act on it since the powers that be are giving this company free rein, whoever that may be. This is absolutely disgusting. It is certainly disgraceful that we even need to have a meeting to beg for our problems to be fixed. When, in fact, it should be illegal for it to continue." (Donaldson, 407/19-25)
- "This is my fifth meeting. I went to Tallahassee when you had them. I went to two of them up there. I have been having problems withy my water. And as you can see, I'm still having problems with my water. Nothing has been done." (Ripkin, 416/16-22)
- "And what I'm really appalled about is this has been an on-going issue for the last, what, four or five, six or seven years, and there is nothing that has been done about it." (Hennessy, 428/10-13)
- "My office was inundated with calls and letters from unhappy Aloha customers. Of course, there is no rhyme or reason to the black water incidence according to many. Day or night, summer or winter, the black water appears." (Fasano, 18/23-19/2)
- "I gave up, you know, talking to Aloha." (Martinelli, 131/23-25)
- "...Now, I really think we don't need any more delays. We don't need any more smoke screens. What we need is everyone working together to get water cleaned up, to get the equipment installed that it is going to take and get the water cleaned up so we will all be happy." (Corelli, 83/3-8)

- "Despite the passage of several years as a legislator, neither the volume of calls nor letters sent to my district office have eased. The reason for that is simple. Nothing has been done to force Aloha to do anything to correct whatever is causing the black water problem." (Fasano, 19/5-10)
- "What good would it do? I mean, we had a petition out there back in '96 and nothing happened. What good would it do if I trotted down to Aloha, paid my my double the bill, by the way, from \$25 up to \$50 for the same amount of water, you don't deserve that rate. Not with this quality water, guys, I'm sorry." (Clayton, 305/8-13)
- "But as I said, I have heard that a lot of complaints have been made in the past with no action." (Williams, 309/3-5)
- "And, I'm sorry, I can honestly say I have never, ever until I was in Aloha's water district experienced any black water. And there is enough evidence around here, there has been enough evidence around here over the past years, I'm shocked that the PSC has been allowing it. They have been allowing themselves to be run over by Aloha Utilities. I'm shocked that we don't have anything in the newspapers or any kind of reports from the public health system. Where are they?" (Mann, 343/17-25)
- "I gave a copy to the Public Service commission at Spartan Manor, and I never heard from anybody." (Rifkin, 417/18-20)
- "And for the record I have filed a complaint with the PSC via Internet and the EPA. And I have called Aloha Utilities regarding my problem.With no resolution from anybody." (Hennessy, 424/16-19)
- "I, too, brought a sample of our water. You can see some sediment floating down at the bottom as it has been sitting there during all of this. We, too, have been here before. We were here in front of the commission, in front of Aloha Water and the Staff about four years ago. All of this that was said tonight was said back then.....In a four-year time, nothing has been done. In a four-year time the crowd lessened, and the crowd lessened in my neighborhood because of the apathy." (Corona, 431/7-24)
- "Because in this country I believe we have the technology and the ability to have clean water delivered to every home, especially if we are paying for it. But we weren't getting it. And we demanded it. And we came forward to the commissioners. And in four-year time nothing has been done. So now I place the blame with Aloha Water and the Commissioners." (Corona, 433/8-150)
- "In September of 1996, you, the Commissioners, saw the physical presence of over 1,000 customers throughout the day who personally came out to protest a rate

increase requested by Aloha. The testimony of many people who spoke and the dozens of jugs of black discolored water spoke for all who came out to make their opposition known." (Fasano, 20/3-9)

- "I have had three homes with PVC pipe in my development. They claim PVC is the answer. These people have a problem. They have smells, they have black water, and one has a fungus that he never had before." (Coogan, 180/5-9)
- On survey that was marked as Exhibit 9: "And if you notice our Response Number 12, that the gentleman has PVC piping throughout his home. And I believe that he replace copper piping with PVC. And you will notice under water color he responded with 3, which is poor. And under water odor he respond 3, which is poor; and on water taste that is an error, that 3 shouldn't be there. He hadn't tasted his water in quite awhile." (Bagnato, 188/15-22)
- On survey that was marked as Exhibit 9: "I believe Mr. Emerson bout his pipe, his house with PVC piping already in it. When I looked in his garage, he has a very large charcoal filtering system which is as big as a normal water softener. He also has a water softener. And he expressed water odor of 2, which is fair, and a water color of 2, which is fair." (Bagnato, 188/23-25; 189/1-4)
- "In summary, Welbilt Technology Center is currently located in Trinity. Welbilt corporate offices are planning to relocate to Trinity. In fact, Welbilt corporate called our offices about three weeks ago and asked that we investigate the availability of additional property in the Trinity Commerce Park-But I have to say in all clear conscience, I cannot recommend this area for relocation until Aloha Utilities is required to provide adequate service or an alternate water source is made available to us." (Day, 64/2065/5)
- "...this morning my neighbor across the street couldn't come because she worked, and I don't know if I'm allowed to do this or not, but this was from out of her water. She ran home - I didn't see her put it in this, but she ran home, came over and said, "Take this with you." And you can see the big drops in there. And that is from 1517 Harvarall (phonetic). That is from. Nancy and Kelly Glenn." (Pratt, 210/14-21)
- Mr. Wood answering Mr. Mclean's question asking him to describe containers he brought with him, "Well, as I look into it, most of it is black, and there are a few speckles in there probably of copper leaching. They are a little green. It looks kind of like I decorated a Christmas tree in there. And it's just dirty." (Wood, 241/25; 242/1-4)

- "This water was from five months ago. It probably looks clean, but this was a new jug that you can see all the black stuff floating in it and it stained the bottom of the brand new jar here." (Dhans, 261/22-25)
- "The residents of Chelsea Place have been given many reasons why the problem is the responsibility of the homeowners and not Aloha from house piping to being at the end of the water system and many other reasons." (Bagnato, 184/17-20)
- "Aloha, in their explanations to us, always seem to infer the residents and not Aloha services caused their good water to turn unacceptable by our construction or what we do, like adding water softeners as an example." (Bagnato, 184/21-24)
- "Aloha has a number of wells. Apparently two of these wells were put in more recently than some of the others, okay. These two newest wells, it's seems as though about the time these two wells went in is when most of these problems started cropping up. And I think it somehow related to these two wells." (Forehand, 334/18-23)
- "We had no black water over there (Veterans Village) at all, ever. Once in a great while we had a little bit of an odor. The same system. Why is the water so different where we live two miles south?" (Bower, 355/20-24)
- "I would like to ask the representatives from Aloha if this fire hydrant that is pumping out dirty, filthy water has copper piping and a water filter on it? It really sounds to me like you are trying to blame your water problems on our filters, our filters and our copper pipes. Is there such a thing in these hydrants?" (Stein, 370/10-16)
- Commissioner Clark to Mr. Porter: "Is there copper piping that goes into the hydrant?" Mr. Porter; "No." Ms. Clark, "Is the water treated by a softener or anything like that prior --.?" Mr. Porter, "Not a softener, no." (Clark & Porter, 371/5-10)
- "Immediately. And the funny thing is the other thing that they said was that was because of corrosion in pipes. How can pipes in a brand new house be corroded?" (Stein, 377/2-5)
- "The problem is the location of their wells. Their water has a very high tannic acid and hydrogen sulfide content." (Sebacher, 382/17-19)
- "I had Dave Porter, which is this engineer sitting right here, he came out to my house. They disconnected the piping from my meter on the street side, which means that the water is not going into my house. They told me there is nothing wrong with my

water. But before they took a test of it, they ran a pipe into the street and ran it for half an hour to 45 minutes, then took a sample and said, oh, it is perfect. And that was Dave Porter, he was there, and also another engineer with him." (Rifkin, 417/6-14)

- "I also have a problem with my copper tubing. I have holes in it. Now, they said if I had reverse osmosis, or if I had a water softener that was probably what was causing it. Well, I now have reverse osmosis, but I don't have a water softener. But that is not where the problem came from this copper tubing is coming right from outside into the house. In other words, it is right from the beginning Aloha water." (Rifkin, 418/17-24)
- "When I built in the early '90s, '92 I moved in, Aloha Water was very good. We had good pressure, not a problem with it. Then the pressure started going down, so they are going to switch wells. They are going to do us a favor. This is great. And they did. And when they switched the wells that is when the problems started." (Lipp, 452/24-25; 453/1-5)
- "I have it coming right out of the hose where your water comes into my house, where I have got a spigot, it comes out black." (Lipp, 457/17-19)
- "I am concerned about the resale value of our home." (Mooney, 449/23-24)
- "I learned very quickly that the problems with this utility company was not isolated to just a few homes scattered around the service delivery area." (Fasano, 18/15-17)
- "Today's paper was a claim that there is very small spotty conditions of this problem. Chelsea Place, Wyndtree, Windham, Trinity Oaks, Boxwood, Riviera, Nature Way, is this just a spotty condition, these developments? I think it is quite big." (Coogan, 180/15)
- "I honestly think the water is making me sick." (Eustice, 219/1-2)
- On Mr. Hartinger's survey of the homeowners dissatisfaction with the water. "We got a 66 percent return with most of the survey papers containing additional comments which range from absolute to disgust to one gentlemen whose doctor determined that he suffered severe health problems caused by the drinking water in his home. And it turned out to be severe bladder infection." (Hartinger, 141/19-24)
- "If the entire community, and it is almost unanimous, feels that we don't have water that is safe to drink, irrespective of who pays, it can't be tolerated." (Crean, 280/2-4)

- "Now, a brand new house, I bought it is August of '95, and you cannot drink the water? Come on, give me a break. It's ridiculous. And what health problems is it causing? I have to be very careful with my husband now. And he is also on another transplant fist. I'm suffering some health problems, I don't know if it is due to the water or not, but I'm going to check into it. And I did fill out those complaints about the water." (Avery, 78/5-12)
- "Ms. Pratt on her daughter calling to complain: "Called about pressure after talking with some of our other neighborsafter no response she got from that, we haven't bothered since you never get an answer back, so why complain." (Pratt, 212/11-20)
- "My wife called the utility company and told them we are having all of these problems, dirty water, black water, low pressure, et cetera." (Eustice, 217/17-19)
- I called Aloha a couple of times, I guess, and they would come out and do the same thing, flush the hydrants and tell me that it is the copper tubing, the copper pipes. It isn't. 'My water is undrinkable from the tap." (Oberg, 263/18-22)
- "At various points I time we have noticed extreme chlorine levels, very high in our water. I did a test on the chlorine, and the chlorine levels were higher than my pool. And that was a scary thought about having my kids, you know, brush their teeth, drink the water, which we use for our coffee." (Hennessy, 424/8-13)
- "We don't use it for drinking water, we drink bottled water in our house. But, you know, through my kids, if they come in and they get a drink of water from our refrigerator, which has a small filter on it, but it is really kind of inadequate for our drinking needs. And just from what they are ingesting, I don't know what ramifications it's going to have on them over a period of time." (Hennessy, 427/25; 428/1-7)
- "But, anyway, maybe I shouldn't even say this, but the reason Steve Vinto is not here tonight, his wife just passed away with cancer. There are six or seven other people in Chelsea Place that have died of cancer. Whether this has anything to do with the water I do not know, but I wish somebody would find out. There are also at least eight people that have cancer but they are still living yet." (Rifkin, 472/2-9)
- "And we have called Aloha to complain about the water, and they just said it was something wrong with the water. I don't know when this was done. And I even called the chief plumbing inspector and told him about it, and said that I'm not the only person that has called to complain. So there is a problem and it is not the pipes, because it is a brand new house." (Fawcett, 311/12-18)

- "At the time I called, no. I mean, nothing was done. But we called my wife called again to complain, and then somebody did come out and did a flushing of the system." (Fawcett, 314/19-22)
- Mr. Deterding: "Have you ever made a complaint to Aloha Utilities of either the low pressure that you complain of or the discolored water?" Ms. Donaldson: "Okay. I haven't. What I did in the beginning is I canvassed my neighborhood. I walk about six miles a day. So I really know many, many of my neighbors in Trinity Oaks. And I asked, and they were very my house wasn't even built when they attended the last set of hearings. And they were adamant and they did everything. And two doors down, he was very involved and they have a file so thick on this, and nothing even happened. And they all, without any difference of opinion, said nothing will happen because of it. Nothing will come from it." (Donaldson, 414/12-25)
- "Yes. We have called Aloha several times. We have had Aloha come on out to the house." (Corona, 436/18-19)
- "For awhile there we had a campaign in our neighborhood. The campaign was every single time it happens call. A lot of our people did that. We tried to be real consistent with it, and it didn't do us any good." (Corona, 437/20-25)
- "We did call Aloha, we had them come out." (Mooney, 446/25)
- "Yes, I said that I had them come out once at the very beginning, and they ran the test at the street side." (Mooney, 451/8-10)
- Responding to "Have you ever filed a complaint with Aloha about the water discoloration?"; "No, because I have known what happened and why waste my time. It is as useless as shoveling you know what against the tide." (Lipp, 457/20-24)
- "Aloha has not earned or should be granted a rate increase until this condition is satisfactorily dealt with." (Bagnato, 194/5-7)
- "All rate requests from Aloha, including the ones that are in the mill right now, should be considered dead on arrival. Aloha should be ordered to correct the problem to the customers' satisfaction. And when that correction Is in place and working, then let them come back for money. Isn't it time that Aloha start serving the customers' requirements." (Wood, 241/9-16)
- "I don't think they deserve all the money I spend for water, not after what they have been doing to me so far. I would gladly pay them, I figure \$1 month, that is enough." (Oberg, 270/1-4)

- The \$10 million translates into a nearly 400 percent increase in rates for each and every customer in the Seven Springs service delivery area. This was and still is an absurd burden that no customer should ever have to bear." (Fasano, 21/1-5)
- "We are being held captive by this monopoly. I request that Aloha be denied any rate increase and that they be ordered to fix the water problem. This means provide water that I can drink." (Forehand, 333/7-10)
- "This is something that they are doing wrong and we shouldn't have to pay for their mistakes. It is not fair." (Stein, 372/25; 373/1)
- "Going back to my original point about the cost, it is inconceivable that a utility company would propose a system, a 400 percent increase, I think, was what they said or thereabouts. At that level I will be paying over \$2,000 per year for water and sewage treatment." (Mooney, 449/15-19)
- "We put in a softener also in 1996 after we were told it was copper. We have changed -- our hot water tank has been flushed, it has been cleaned out, nothing changes. We were told it was copper." (Reis, 136/2-5)
- "My home is just over two years old. Approximately six months into our home we decided to installed a water softner I have a sample of the pipe here, and you can clearly see in side the blackness forming at an early stage." (Hawcroft, 117/11-16)
- " ... I know of six different contractors that have built homes in the area here. Now, you think we should be led to believe that each one of those contractors, there is only six that I know of, but I'm sure there are more, but they all went to the same source to by that copper tubing that is defective. It don't make much sense to think that they could all go to the same source to get some bad copper tubing. So it doesn't lend itself for one to think that that could possibly be a real reason of our problem. The real reason for the problem is the filth is being pumped into our homes from Aloha." (Sharkey, 166/10-21)
- "And they can continue to use the argument of the copper piping; but why are we not getting the same problem throughout this county, but only in the Aloha servicing area?" (Fasano, 24/10-13)
- In response to a question from Mr. Jaeger regarding whether copper has been banned in any counties in Florida, Mr. Mitchell said 'No, sir, I have not." (Mitchell, 95/11)

- "I bought this house April of '98 in Riviera, and right away started having water problems. And I called Aloha several times to come out. And they came out and told me it was the copper water tubes in my house causing the black water. Well, I have been in the plumbing business all my fife for 40 years in the wholesale business, and I know for a fact that copper has been the standard of the industry for 60 years..." (Mitchell, 88/19-89/2)
- "I did send them a sample, and they did reply that it was the water chemistry in the water itself coming into the house that caused the black water problems in the copper water tube." (Mitchell, 90/5-8)
- "And they can continue to use the argument of the copper piping; but why are we not getting the same problem throughout this county, but only in the Aloha servicing area?" (Fasano, 24/10-13)
- "We haven't had anything resolved at this point. But the purpose of my complaints has been we have had numerous amounts of leaks in our copper piping. We have had approximately, at this point in time during the last year, nine leaks in our copper tubing. ... We have had our carpets replaced in the house." (Hennessy, 424/20-25; 425/2)
- "I already called a plumber today, in fact, to come out and replumb my house. And they are going to be making arrangements with me tomorrow to replumb it. And that is at my expense, not Aloha's, because I haven't had any response from the PSC, Consumer Protection, or Aloha regarding this." (Hennessy, 425/25; 426/1-5)
- "I'm going to put in CPVC." (Mr. Hennessy, 429/12) "It won't improve our water quality, but we're hoping it will stop the leaks. Our carpet has been soaked many times now. We can't file another insurance policy for this. We have a child with allergies. And we are hoping that mildew doesn't grow under this carpeting now. We tear it up each time, we dry it out, we spray it with disinfectant. Once it dries we lay it back down." (Hennessy, 429/13-20)
- "Yes, we have experience both of those -low water pressure and leaking and the smell problem. We have had the leaking pipe, we had one that we came home, my wife and I pulled up and water was coming down the driveway. We opened up the garage door and it was coming out of the house. When we opened the garage door, it looked just like a cartoon. We have a dog and a cat. And the cat was up on the dryer and the dog was over on a piece of the furniture. And we had about four inches of water in almost the entire home." (Corona, 439/1-10)

- "But I know my neighbor three doors down now has had plumbers and builders in for the full week replacing piping that has been leaking in three of their bedrooms." (Mooney, 450/9-12)
- "But these are two the pipes that the plumbers had to that replace. And the reason I have tissues in either end is because of all the black inside the pipes. These are the pipes that come right outside the meter before they go into house. And this is the ones that were leaking." (Rifkin, 468/12-17)
- "This question about the copper pipes, that is another thing that, you know, it is just a complete fabrication. Copper pipes in a home, if they did cause the water to become contaminated, the utility would almost certainly require these homes to install backflow preventers like all businesses must have today. Because a water distribution system is a closed, sealed, protected system. There are no questionable connections allowed on a water distribution system without a backflow prevention device." (Corelli, 82/14-23)
- "Those problems were many and varied. From relatively simple complaints of low water pressure to horrendous reports of black foul-smelling water gushing from taps." (Fasano, 18/20-22)
- Mr. Sharkey's reply to Mr. McLean's question of, "If you got a statement from Aloha Utilities where they chose the testing firm and they chose the time the water was going to be tested and they said the water was great, would you have any confidence in that?" Mr. Sharkey's reply was: "No, I wouldn't. And I don't think you will find many people in the usage area that would confirm that." At that point Mr. McLean then asked, "If you could hook your water up to a different water system other than Aloha, would you do it? " Mr. Sharkey replied, "Yes, indeed. Yes, indeed." (Sharkey, 175/12-22)
- "I have a booklet loosely binded that contains everything pertaining to Aloha's problem; water quality, their refusals to do things. And I'm just wondering, are they the only water company that is in this area, because I can't find anything in any newspaper about any other water company in Pasco County. There is numerous things about them. I have a picture of Doctor Garrity, who is no longer with this organization, with the statement I wouldn't drink this water. Also, Doctor Michael Young (phonetic) also said the same thing, he wouldn't drink this water. At one time in my home I had Channel 28 news, and the reporter stated, she wouldn't let her fish swim in my bathtub. She wouldn't put the fish in the water. (Coogan, 177/11-24)
- "I feel that our water problem really started when we were put on new well. I believe it was Well 8 and 9. I do believe personally, and too a lot of my neighbors

that when 8 and 9 came into being our problems really started." (Coogan, 179/19-25)

- Response to Mr. McLean's question that if you could connect your house to some other company other than Aloha, would you do so? Mr. Coogan responded, "In a minute." (Coogan, 180/13-160)
- "We moved into that house in August of 1994 and we have had water quality problems since moving in there." (Bagnato, 183/25; 184/1-2)
- "....the residents of Chelsea Place have had an on-going serious problem with the quality of water delivered to their homes by Aloha Utilities. This problem has existed over the last five years without improving." (Bagnato, 184/13-17)
- "Our homes have been built consistent with the codes established by the State of Florida and local municipal codes. Our homes were inspected and deemed to meet their codes. It is difficult for our residents to accept the premise that the water problem is in our homes when our homes are constructed under similar codes to that of our neighbors that Aloha reports does not suffer the water qualities. In view of this it is on the side of simple logic that there is something different about the water being delivered to our homes as compared to other homes of the Aloha customer base of similar construction." (Bagnato, 185/2-12)
- "The Chelsea Place homeowners have conducted a survey of its residents to establish how widespread the water quality is within our community. We are aware the problem was experienced by many of our homeowners, but were surprised by the depth of the problem and the lack of confidence of our residents and die willingness of Aloha to improve the condition." (Bagnato, 185/13-19)
- "I don't know what kind of rules and regulations and all of those things there supposedly are, but I know there is none that says black water is great. (Wood, 238/4-6)
- "When is Aloha going to deliver clean, clear, pure water? Why can't Aloha deliver this? The only reason I can say they have cheated on their process." (Wood, 240/23-25)
- "We don't dare drink it, we don't dare to cook with it." (Oberg, 265/6-7)
- Mr. Crean citing what another individual told him: "...I think the Aloha water killed her dog. Her dog was about five or six years old and died of kidney failure. And she believes, rightly or wrongly, that the quality of the water was responsible. And she

further added that she thinks has a similar problem and thinks it might be due to Aloha water." (Crean, 277/1-7)

- Mr. Fasano read a letter from Mr. James Finnegan who wrote: "...I have lived in my residence since October of 1995 and have had problems with the water from Aloha since day one. The water comes out from the faucet black with the smell of rotten eggs ... I wouldn't think of using this water for drinking purposes. I have complained to Aloha time after time and they have excuse after excuse. They say the problem is due to copper pipes. I don't have copper pipes in my house. I have lived here eight complaintsyears in Port Richey and had a great quality of water..." (Mike Fasano reading James Finnegan's letter, 25/5-19)
- "Commissioners, Mr. Finnegan's letter is representative of the types of complaints I receive almost daily about Aloha Utilities. Some stories are worse..." (Fasano, 25/22-24)
- On Mr. McLean's question as to whether Mr. Sharkey would hook up to another water system if he could. "Yes, indeed. Yes, indeed." (Sharkey, 175/22)
- On survey that was marked as Exhibit 9: "The fourth question was overall satisfaction with Aloha. We had one response of good, 21 fair, 86 poor." (Bagnato, 185/17-19)
- "You live in a different area. You don't have the problem. But I'll bet you ten to one if you lived in this area and you live where we live and you had to get up and you children had to use that water, you wouldn't like it very much, the same as we don't like it." (Sessa, 227/20-24)
- "I regretfully state today that I am an Aloha Utilities customer. If I had the opportunity, and you don't have to ask this question, to go to another utility right now, I would be on my way." (Wood, 235/22-25; 236/1)
- "My family has done a great deal of relocations over the years. We have lived in 18 different residences in 18 different communities in six different states. And some of the homes we have lived in have had PVC pipes, some of the homes have had copper pipes. There have been public utilities, there have been private utilities, and we have never had a water problem in all of those, I guess it would be like 45 years." (Crean, 272/23-25; 273/1-5)
- "We have lived in lots of places, I have never experienced the kind of animus and cynicism that I see in this community with reference to a service provider as there apparently is towards Aloha Water." (Crean, 278/20-24)

• "We are being forced to use Aloha water. Alohas has been given a monopoly over our water supply. They obviously cannot give the consumer what we are paying for. We have the right as consumers to get what we pay for. We pay for clean drinking water, that is clear and usable. We do not drink the water that comes from the tap. We are forced to enjoy the inconvenience and the expense of purchasing drinking water from outside sources." (Martinelli, 130/2-16)

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