IWA PIPELINE

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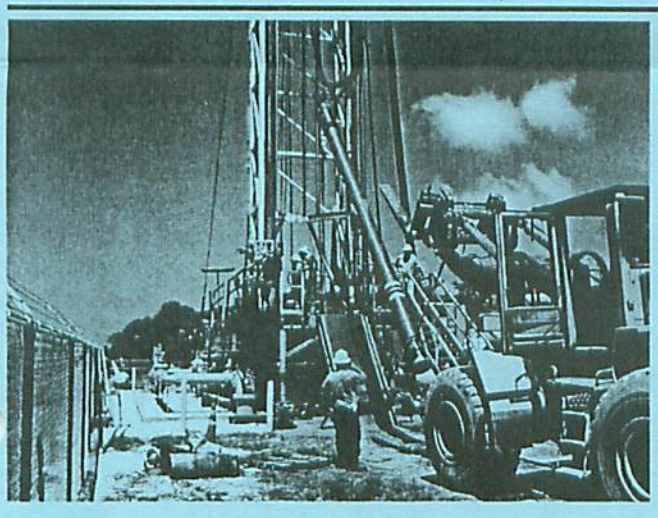
WELL DONE (Pun Intended)!!!



In the Spring issue of this newsletter, we noted that our deep injection well needed some maintenance. The well, which is used jointly by IWA for brine disposal and the City of Sanibel for excess treated effluent disposal, was experiencing higher than expected injection pressures. The source of this problem was found to be a build-up on the innermost steel casing, caused by higher than expected Chlorine level in the injected fluid. The best solution to this problem was determined to be replacement of that casing with a new one, made of fiberglass, at an estimated cost of $675,000, which was to be shared by IWA and the City of Sanibel.

The project began on April 3rd, with drilling of two shallow wells adjacent to the site, to monitor for any pollution resulting from construction activities. On April 9th, the drill rig required to do the work arrived in the middle of the night, to minimize traffic problems as it traveled over the causeway and down Periwinkle Way. The rig was half the size of the one used to originally drill the well, but at over 100 feet high, it was still a very large piece of equipment. On April 15th, the rig was positioned over the well to begin the actual casing replacement. It was a VERY tight fit!

On April 17th, removal of the old steel casing began. It took around 350,000 pounds of upward pulling force to begin this process! Over the course of the next two days, all 2,500 feet of the old 14 inch diameter casing was removed and cut into 40 foot sections for subsequent disposal (we sold it for over $7,000!). Before installation of the new fiberglass casing began, we ran a camera down the well and inspected the remaining outer steel casing, which looked as good as the day it was installed.

On April 21st, the first of 86 thirty- foot lengths of new 13 inch diameter fiberglass casing was installed (see picture to left). The individual lengths were screwed together with a very large hydraulic wrench to a predetermined tightness. The new casing was fully installed by the end of the following day. A corrosion inhibitor was installed into the doughnut-shaped space between the outer steel casing and the new fiberglass one. A successful pressure test was conducted on that space on April 25th. This test, which ensures that we have at least two leak-free casings containing the injected fluids, was witnessed by the Florida Department of Environmental Protection.

After reinstalling a lot of above ground wellhead piping, the injection well was returned to service on May 1st. Over the next two weeks, we carefully monitored the well, and we detected a very small loss of corrosion inhibitor fluid, which is kept pressurized at all times to enable us to immediately detect such losses. Although the loss was so small that it was hard to even detect (less than ¾ths of a gallon per day!), we decided that further work was necessary to reduce that loss to zero. On May 20th, the well was again taken out of service. The new casing was extended by 14 inches, and the additional length was then forced down the well to increase the load on the sealing mechanism located 2,500 feet below ground on the end of the casing. IWA's engineers believed it was incom-

plete sealing of that mechanism that was causing the fluid loss. After the modification was complete and everything was put back together again, the well was again returned to service on May 24th. On June 11th, we conducted another pressure test, which we again passed with flying colors. The well has been closely monitored since that time, and as of the date this newsletter was being written (August 22th), the fluid loss has been zero.

Overall, this was a very successful project. The total cost of $613,000, was $62,000 below the budget of $675,000. There were no unexpected costs. Engineering/consulting costs were kept to an absolute minimum by using IWA's in-house engineering staff, who designed and permitted the project, monitored field operations and prepared the extensive final report on the project, as required by the Florida Department of Environmental Protection. Thanks are due to Youngquist Brothers, Inc., who did an excellent job on the actual field work, and CDM/Missimer International, who provided timely and very insightful hydogeologic consulting services. Everyone worked together very well to ensure a successful project.

WELL DONE AGAIN!!!! (No Pun Intended)

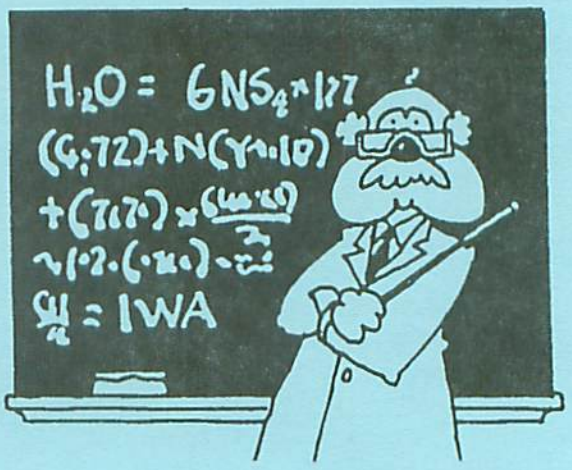
On June 3rd and 4th, the South East Desalting Association (SEDA) held its biennial conference at the South Seas Plantation resort on Captiva. This conference brings together people who are interested and involved in all aspects of water desalination, focusing on the latest information on operating data, research programs, technology, and manufacturers' services. There are presentations and equipment displays to help disseminate that information.

Several IWA RO plant operators attended the conference, as part of their required ongoing training to maintain their state-issued licenses (see also the article on the next page). In addition, two IWA operators, Steve Dover and Brandon Henke, presented a paper on IWA's history and accomplishments. The IWA Board of Directors was so impressed by that presentation that we have made it available to everyone on our website at www.islandwater.com, by clicking on "About Us" and then "RO Plant." Take a look, you will be impressed as well!

In addition to the presentation by Brandon and Steve, IWA also provided two days of "hands-on" training for conference attendees in our RO plant. This training covered many aspects of operating and maintaining a reverse osmosis treatment plant. Our only concern with providing this training was in the area of security. To avoid any problems, we made sure everyone attending the training in our plant was a SEDA member, with proper personal identification. We had extra security guards on hand, and the training did not include some of the more "sensitive" areas of our facilities.

At the conclusion of the conference, we were very pleased to learn that we had received the award for Outstanding Membrane Treatment Plant in the Southeastern United States. This award considered such areas as training/certification of staff, emergency response preparedness, regulatory compliance, water conservation, customer relations and safety. The extensive paperwork required to receive this award was prepared by Robbie Smith, our Production Supervisor/Chief Plant operator. Congratulations to Robbie, Production Manager Phil Noe, Brandon, Steve and all rest of Production Department on a job well done!

QUIZ (Answers on last page.)



1. Most of IWA's underground pipes are made of:
   (A) Concrete (B) Plastic (C) Steel (D) Wood

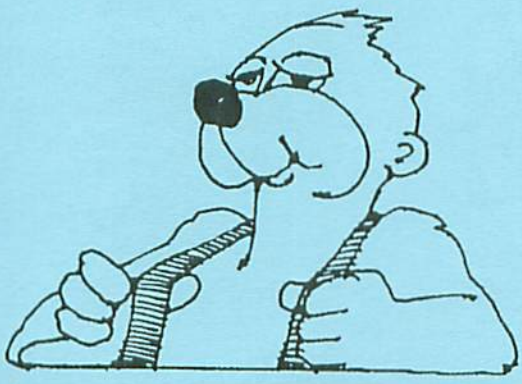
2. How many days of average water demand does IWA keep in storage tanks?
   (A) 5 (B) 10 (C) 1 (D) ½

3. How many vehicles (cars/trucks) does IWA own?
   (A) 4 (B) 8 (C) 12 (D) 16

4. How many water distribution pumps can IWA run during a power outage?
   (A) 0 (B) 2 (C) 5 (D) 10

5. What is the minimum postage required to pay your IWA water bill?
   (A) 37¢ (B) 34¢ (C) 0¢

SHOW ME YOUR LICENSE!



At IWA, we take training of our employees very seriously. This year, we expect to spend around $35,000 on various aspects of training. One measure of employee training level is the government-issued licenses they have obtained. At IWA, we encourage our employees to obtain the highest possible level of licensure for their area of responsibility.

In the RO Plant, we have eleven operators. Four of them have A licenses, which is the highest possible level; five have B licenses; one has a C license, and one is a Trainee. It takes one year of on-the-job experience to be eligible to take the rigorous test to obtain a C plant operator's license, three years for a B, and five years for an A license. For a plant of our size, we are only required by the state of Florida to have one B licensed operator, with the rest at the C level. Obviously our operators trained well beyond the minimum required, and we believe that benefits everyone, from our Members who receive top quality water service to the employees who are better paid as they achieve higher licenses.

In Distribution Department, the people who read our meters and repair leaks in our underground pipes, the state does not require any licenses, although they do offer them for employees who wish to improve their knowledge level. In our Distribution Department, we have eight technicians. Three of them have A licenses, which is again the highest possible level, and three have C licenses. The required on-the-job experience is the exactly the same as that mentioned above for RO plant operators. Two Distribution Department members, Joe Scofield (A/A) and Jon Gasaway (A/B), hold licenses in both distribution and plant operations.

Licensing at IWA doesn't stop with the plant operators and distribution technicians. We also have two licensed electricians in our Maintenance Department, one with a Master Electrician's license and one with Journeyman's license. With these licenses, we are able to do all our electrical design, installation, maintenance and permitting in-house. In Engineering Department, we have two employees with Professional Engineer's licenses, which enables us to do most of our design and permitting in-house as well.

In addition to all the above mentioned licenses, we have two additional employees with plant operator A licenses and one more with an A distribution license. These employees are now in supervisory positions or in different departments, but we can always call upon their expertise when we need a helping hand.

Overall, adding-up all the above numbers, we have 23 employees with various levels of licenses, out of a total of 33 employees. We think that is pretty impressive! Of the remaining 10 employees, many are in areas where licensing is not an option, but they are none-the-less very well trained, some with over 20 years of IWA experience!

LIZZIE LITE

Our company mascot, Lizzie the cat, has reached another milestone in her short kitty-life. She has been officially declared a "Fat Feline" by her vet. We suspected as much, being as how she is roughly as wide as she is long, weighing in at just under 15 pounds.

We have no idea how this could have happened to Lizzie. We first asked Membership Coordinator, Karen Warrick, who said she has strictly limited Lizzie's turkey and chicken snacks to no more than a pound a day. Next we checked with Engineering/Distribution Manager, Dick Derowitsch, who confirmed that her canned salmon ration was similarly limited. Several other nameless employees indicated similar restrictions

on Lizzie's caloric intake. Lizzie herself is keeping tight-lipped about the whole affair, which is one of the few times she has kept her mouth closed.

Anyway, the answer to this dilemma was painfully obvious. Lizzie has to go on a kitty diet. She let it be known that she had no intention of eating lettuce, so we had to find another alternative. We bought her low-fat, or "lite" cat food. Basically that is just regular cat food with 50% cardboard added-in as a filler. Lizzie has indicated in a variety of ways that she's not all that happy with her new food, but she is getting used to it. We fully expect that she will be down to a svelte 14 pounds in a year or so, assuming her chicken/turkey and salmon rations continue to be severely curtailed.

WE ARE GROWING!

Readers of this newsletter may recall that during March and April this year, IWA set all-time water consumption records. It was the peak of tourist season, and the weather had been extremely dry. On March 31st, our demand peaked at 5.2 million gallons per day (MGD). If you are finding it hard to visualize what 5 million gallons of water really means, just stop by our offices some day and take a look at the large water storage tank to the right through the plant gate. That is a 5 million gallon tank. It's a whole lot of water, and we used that much in one day!

Since our reverse osmosis treatment plant is sized for a maximum of only 4.66 MGD, the difference between that level and 5.2 MGD on March 31st had to come from our 15 million gallons of storage. Even though we never got below 80% in our storage tanks, it was enough to make us nervous, so we started to look for ways to increase our plant capacity. As it turned-out, the new low pressure membranes we installed last year to reduce electricity costs provided a nearly zero cost option for increasing our capacity. The new membranes can be operated to either save power or to make more water with additional power consumption. Since the very high demands only occur for a few days each year, it made sense to use that additional capacity for those limited periods and just accept a little more power consumption.

Our Engineering Supervisor, Shelly Storves, prepared the paperwork to modify our operating permit for a maximum capacity of 5.22 MGD, an increase of over a half million gallons a day. We shipped-off Shelly's paperwork and a check for $2,000. A couple months later, the permit was approved. Problem solved!

We hope that the inevitable further growth in water demand in the future will be offset, at least in part, by the City of Sanibel's' new reuse water system that should be in service before too long.

ANSWERS TO QUIZ

1. B. Most of our pipes are PVC.

2. A. We have 15 million gallons of water storage, which equates to around 5 days of average demand.

3. D. We have 15 trucks and one car.

4. D. We can run all 10 of our distribution pumps on either a diesel generator or a propane-fueled engine.

5. C. You can use our automatic debit option and totally avoid mailing your payment to us. Call Karen at 239-472-1502 for details.

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