

Monthly Magazine
April 2009 Edition

AQUA D'
EXPRESS



Md's Desk

Dear All,

This month marks a new beginning with respect to the new financial year. We started this year with a bang by bagging the order for supply of WTP for SBQ Steels. This being a repeat order from the client makes it even more special in terms of trust and confidence our clients have on us.

It was also a special moment to take part in the pooja ceremony conducted at Ford for the commissioning of the MBR based STP plant which was completed successfully in record time.

The enthusiastic participation of all Staff at the training session conducted by the psychotherapist was a revelation that such sessions are to be organized at paced frequency to invigorate our associates. I expect the HR Dept to do the needful in organizing such interesting events.

Now that our ISO Recertification Audit date has been fixed in June, I am sure all departments are well prepared to face the audit and come through successfully. If any minor lapses are still present, I expect them to be rectified immediately to ensure a clean chit from the Auditors.

Regards,



S. Suthakar
Managing Director

EVENTS OF THE MONTH

Aqua Designs has successfully commissioned the Ford MBR STP plant. A pooja was conducted at the site to commemorate this occasion.



TRAINING SESSION WITH PSYCHOTHERAPIST



UV WATER TREATMENT

Ultra-violet (UV) treatment is the disinfection process of passing water by a special light source. Immersed in the water in a protective transparent sleeve, the special light source emits UV waves that can inactivate harmful microorganisms. This method of treatment is growing in popularity because it does not necessarily require the addition of chemicals.

UV systems alone are neither intended to treat water that is visually contaminated nor intended to convert wastewater to safe, microbiologically potable water.

UV treatment-Principle

The ultra-violet rays, similar to the sun's UV but stronger, alter the nucleic acid (DNA) of viruses, bacteria, molds or parasites, so that they cannot reproduce and are considered inactivated. UV treatment does not alter the water chemically as nothing is added except energy. It should be noted that inactivated microorganisms are not removed from the water. UV treatment does not remove dirt and particles, metals such as lead or iron, or hard minerals such as calcium. Other devices are required to remove particles, metals and minerals.

If your drinking water is municipally supplied or your regularly tested water source is safe, it is likely that you do not need a UV system for health purposes. If further peace of mind for safe drinking water is your goal, UV may provide additional treatment to your water.

Is UV-treated water safe to drink?

UV-treated water is safe to drink. UV treatment does not add chemicals or change the chemical composition of the water. When properly sized and installed on a visually clear water source, UV can effectively protect from microorganisms in the water. Prolonged storage of water after UV treatment is not recommended

Different types of UV systems?

There are different types of UV systems. UV systems exist to treat all possible flow ranges, from small point-of-use applications to entire municipalities. For household applications, a point-of-use or point-of-entry UV system can be used. A point-of-use system is a small, portable device that attaches to a faucet and rests on the counter. It can also be mounted under a counter. Larger point-of-entry systems are also available which are installed where the water supply enters the home, disinfecting the entire water supply.

Should you decide to purchase a UV system, there are two types: Class A and Class B.

Class A systems can be both point-of-entry and point-of-use (large or small); and, are designed to inactivate and/or remove microorganisms including bacteria, viruses, *Cryptosporidium* oocyst and *Giardia* cysts from contaminated water. However, they are intended to be installed on visually clear water (not colored, cloudy or turbid water) and not for converting wastewater or raw sewage to drinking water.

Class B systems can also be point-of-entry and point-of-use systems (large or small); however, they are intended for supplemental bactericidal treatment of disinfected public drinking water (i.e. municipally supplied water) or other drinking water that has been tested and deemed acceptable for human consumption by the provincial or local health agency having jurisdiction. They are intended to reduce nuisance microorganisms and are not intended for disinfections.

. All types of systems require a 110/230 -V outlet for operation.

What are the parts of a UV system?

A UV system is comprised of the following:

- UV light source called a “lamp” or “bulb”. Class B UV systems typically deliver a dose of 16 mJ/cm², and are normally chosen by people on municipally treated water or private water supplies unlikely to be unsafe. Class A systems deliver a dose of 30 to 40 mJ/cm², enough to be used on water supplies which are not considered safe. A dose of 40/cm² is recognized as sufficient for this type of application. As there are a variety of wattages for the lamp, ensure your replacement bulb is the one the manufacturer recommends for that unit.
- Protective transparent housing for bulb usually quartz
- Power supply
- A water chamber for the water to travel through for treatment
- Filters for pre- and/or post-treatment
- For larger Class A systems, there may be a bulb replacement indicator light and/or alarm

Installing UV

Point-of-use systems can be installed by you; however, it's important to know the condition of your water before use in the case you need pre-filters. With point-of-entry systems, there are a number of aspects that need to be considered when installing a unit. These include assessing the condition of the incoming water, the need to install some pipes and the need to properly disinfect the system. This work is probably best done by a plumber, water professional or mechanical contractor. If you are in a rural area and wish to install a system by yourself, contact a local plumbing supply store. In all cases, carefully read the manufacturer's instructions and follow them to the letter. You may want to consult a professional if a more complex system (one that uses filters) is required.

Water should be free of soil or sand particles (it should look clear and not cloudy). Such particles can block the UV rays and allow harmful particles to survive. Accordingly, a UV system normally has a five-micron filter installed upstream from the UV unit. For surface water usage (as opposed to well water), a one-micron absolute filter should then be installed after the five-micron filter to remove cysts (small capsule-like sacs that enclose organisms). The UV unit is installed after these filters. There are characteristics that can affect UV effectiveness such as water hardness, alkalinity, pH, and iron concentrations etc. Water should be therefore tested before installation to see if it will need additional treatment. This will assure proper UV disinfections. Contact a UV manufacturer or a water-testing laboratory to arrange a test.

Operation and maintenance:

Simply follow the manufacturer's instructions for operation and maintenance. The basic for a point-of-use (tap) model, for example, is to attach it to the faucet and plug the device into an electrical outlet.

UV units operate at a low cost. The bulb gradually loses its disinfecting capabilities over time. It should be changed by you at least once a year even if it is still operating. The quartz sleeve surrounding the bulb must be kept clean in order for the unit to function safely.

It should be examined once a month; and if it becomes cloudy, it should be cleaned.

Please note that no one system can treat water 100 per cent, and without proper maintenance it should not be considered 100 per cent reliable.

In cases where you suspect the water is unsafe due to a malfunction of the unit, you should boil water for one minute before using the water for drinking and brushing teeth. Should your plumbing becoming contaminated, it is recommended that you contact your local public health unit for the proper clean-up procedures.

Other treatment devices may be required in addition to UV. Prolonged storage of water treated using UV, as the sole method of treatment, is not recommended.

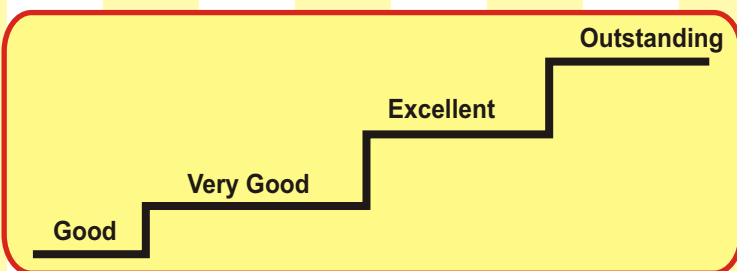
If your drinking water comes from a private source, (such as a well), be sure to have your water tested periodically to ensure it safe to drink

SOME LIONS...

SCALLION - Green onion
BILLION - One thousand million
HELLION - Mischievous person
REBELLION - Up spring
VERMILION - Red pigment
STALLION - Male horse

PAVILION - Large canopy
BATTALION - Army unit
MEDALLION - Taxicab permit
RAPSCALLION - Rascal
MILLION - Ten lakhs
SCULLION - Kitchen helper

THINK OUT OF THE BOX



Employee "A" in a company walked up to his manager and asked what my job is for the day?

- The manager took "A" to the bank of a river and asked him to cross the river and reach the other side of the bank.
- "A" completed this task successfully and reported back to the manager about the completion of the task assigned. The manager smiled and said **"GOOD JOB"**

Next day Employee "B" reported to the same manager and asked him the job for the day. The manager assigned the same task as above to this person also.

- The Employee "B" before starting the task saw Employee "C" struggling in the river to reach the other side of the bank. He realized "C" has the same task.
- Now "B" not only crossed the river but also helped "C" to cross the river.
- "B" reported back to the manager and the manager smiled and said **"VERY GOOD JOB"**

The following day Employee "Q" reported to the same manager and asked him the job for the day. The manager assigned the same task again.

- Employee "Q" before starting the work did some home work and realized "A", "B" & "C" all has done this task before. He met them and understood how they performed.
- He realized that there is a need for a guide and training for doing this task.
- He sat first and wrote down the procedure for crossing the river, he documented the common mistakes people made, and tricks to do the task efficiently and effortlessly.
- Using the methodology he had written down he crossed the river and reported back to the manager along with documented procedure and training material.
- The manger said "Q" you have done an **"EXCELLENT JOB"**.

The following day Employee "O" reported to the manager and asked him the job for the day. The manager assigned the same task again.

"O" studied the procedure written down by "Q" and sat and thought about the whole task.

He realized company is spending lot of money in getting this task completed. He decided not to cross the river, but sat and designed and implemented a bridge across the river and went back to his manager and said, "You no longer need to assign this task to any one".

The manager smiled and said **"OUTSTANDING JOB 'O'. I am very proud of you."**

What is the difference between A, B, Q & O????????

Many a times in life we get tasks to be done at home, at office, at play.,

Most of us end up doing what is expected out of us. Do we feel happy? Most probably yes. We would be often disappointed when the recognition is not meeting our expectation.

Let us compare ourselves with "B". Helping some one else the problem often improves our own skills. There is an old proverb (I do not know the author) "learn to teach and teach to learn". From a company point of view "B" has demonstrated much better skills than "A" since one more task for the company is completed.

"Q" created knowledge base for the team. More often than not, we do the task assigned to us without checking history. Learning from other's mistake is the best way to improve efficiency. This knowledge creation for the team is of immense help. Re-usability reduces cost there by increases productivity of the team. "Q" demonstrated good "team-player" skills,

Now to the outstanding person, "O" made the task irrelevant; he created a Permanent Asset to the team.

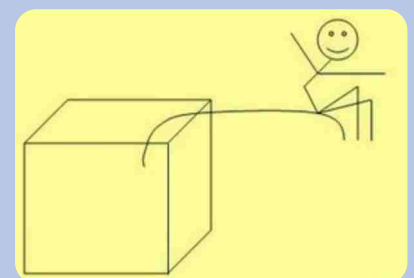
If you notice B, Q and O all have demonstrated "team performance" over an above individual performance; also they have demonstrated a very invaluable characteristic known as **"INITIATIVE"**.

Initiative pays of every where whether at work or at personal life. If you put initiative you will succeed.

Initiative is a continual process and it never ends. This is because *this year's achievement is next year's task.*

You cannot use the same success story every year.

The story provides an instance of performance, where as measurement needs to be spread across at least 6-12 months. Consequently performance should be consistent and evenly spread. Out-of-Box thinkers are always premium and that is what every one constantly looks out for. Initiative, Out-of-Box thinking and commitment are the stepping stone to success. Initiative should Be life long. **THINK OF OUT OF THE BOX.**



Some Facts ...

- ✘ Did you know that there are 206 bones in the adult human body and there are 300 in children (as they grow some of the bones fuse together).
- ✘ Flea's can jump 130 times higher than their own height. In human terms this is equal to a 6ft. person jumping 780 ft. into the air.
- ✘ The most dangerous animal in the world is the common housefly. Because of their habits of visiting animal waste, they transmit more diseases than any other animal.
- ✘ The human eye blinks an average of 4,200,000 times a year.
- ✘ It takes approximately 12 hours for food to entirely digest.
- ✘ An inch (2.5 centimeters) of rain water is equivalent to 15 inches (38.1 centimeters) of dry, powdery snow.
- ✘ 40 to 50 percent of body heat can be lost through the head (no hat) as a result of its extensive circulatory network.
- ✘ The longest living cells in the body are brain cells which can live an entire lifetime.
- ✘ The most powerful laser in the world, the Nova laser at Lawrence Livermore National Laboratory, CA, USA, generates a pulse of energy equal to 100,000,000,000,000 watts of power for .000000001 second to a target the size of a grain of sand.
- ✘ The fastest computer in the world is the CRAY Y-MP C90 supercomputer. It has two gigabytes of central memory and 16 parallel central processor units.
- ✘ The heaviest human brain ever recorded weighed 5 lb. 1.1 oz. (2.3 kg.).
- ✘ The ears of a cricket are located on the front legs, just below the knee.
- ✘ Sound travels about 4 times faster in water than in air.
- ✘ Scientists have discovered that copper pollution of the atmosphere occurred about 2500 years ago. This was discovered by analyzing ice cores from Greenland. The pollution was attributed to the Romans who used copper for military purposes and to produce coins.
- ✘ The only letter not appearing on the Periodic Table is the letter "J".

Newcomers in Aqua Designs



Mr.N.Ragupathy has joined our team as Engineer- E&C and has around 8+ Years of Experience in the Field of Erection and Commissioning.



Mr.N.Surianarayanan has joined our team as Assistant Manager QC and has around 17 Years of Experience in the Field of Quality Control.



Mr.Rishabh Patait has joined our team as Deputy Manager Marketing and has around 2 Years of Experience in the Field of Marketing/Proposal.



Mr.S.Sendil Kumar has joined our team as Manager-Accounts and has around 9 Years of Experience in the Field of Accounts & Auditing.

New Projects



SBQ Steels Limited (WTP)

A new company formed to implement a 0.5 Million Ton Integrated Steel plant in Nellore District of Andhra Pradesh. It will be one of the lowest cost producers of Alloy Steel required by the Automotive Industry and would not only meet the requirements of the auto ancillaries in an around Chennai city but to export the steel to users in Europe and North American continents. Aqua Designs has bagged another order for providing a 340m³/hr Water Treatment Plant.



WHICH FUTURE WILL YOU CHOOSE ?

*Aqua Designs offers cost effecting
recycling technology in
water and waste water*

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