The 10 Most Frequently Asked Questions About Ultra Violet Disinfection

Why do I need Disinfection?

Disinfection is required on all water supplies that are not protected by a municipal water source. Unfortunately, due to the uncertainties that exist with our current water supplies, we can no longer rely on the fact that our water supplies "may be safe". By providing your own disinfection, you are taking the responsibility of ensuring the safety of your water supply for you and your family.

Does Ultra Violet remove E. coli?

Yes. E. coli requires a UV dose of between 6 to 10 mJ/cm2 to achieve 4-log disinfection. This is well within the requirements of the Sterilight® UV system.

Is Ultra Violet 100% effective?

UV disinfection typically offers a 4-log reduction (99.99%) in both bacteria and virus. UV is more effective than chemical disinfection processes at destroying viruses.

Do I need to worry about the quality of my water prior to the Ultra Violet System?

Yes. For an Ultra Violet system to be effective, it is recommended that the influent water contain less than the following:

- ✓ Iron less than 0.3 ppm (parts per million)
- ✓ Hydrogen sulphide less than 0.05 ppm
- ✓ Suspended solids less than 10 ppm
- ✓ Manganese less than 0.05 ppm
- ✓ Hardness less than 7 gpg (grains per gallon)

If your water reads higher than any of the above, a water softener and/or iron filter will be required.

How much does it cost to operate?

Ultra Violet systems are extremely economical to operate. A typical 8 gpm whole house UV system operates on the same power requirements as a 40-watt light bulb!

Will Ultra Violet change the taste of my water?

No. UV is a physical disinfection process. It does not change the taste or odour of the water. It simply provides safe, reliable disinfection and adds nothing to the water.

What are the annual maintenance requirements?

UV systems contain no mechanical parts that wear out or require maintenance. UV lamps have a useful life of approximately 8,000 hours, which means that the lamps require annual replacement. You will be reminded that it is time for your annual bulb change when your system or bulb is purchased at Clearflow Pumps & Water Treatment.

Should I shut my system off when I am not using it?

No. The UV system should be left on whether you are using the water or not. The lamps age regardless of the amount of water drawn through the system. By leaving the unit on, you will eliminate the potential problem of having contamination pass through the system while the unit is off.

Is Ultra Violet effective against protozoa such as Cryptosporidium and Giardia Lamblia?

Yes. As a result of recent findings by academic researchers, it has now been proven that UV appears to be the best available technology to treat protozoan cysts. In addition, the dose levels required to inactivate

these cysts are actually quite low; less than 10mJ/cm2 for 99.99% reduction of both Cryptosporidium Parvum and Giardia Lamblia.

Do I need to disinfect my municipal water supply?

Our Municipalities work very hard to provide safe, disinfected water to their customers. This is quite evident when you consider the difficulties involved in providing safe drinking water through a vast distribution network. If you use water that comes from a municipal water supply and wish to provide your family with an added “peace of mind”, then we believe a UV systems acts as an inexpensive insurance policy against the possibility of drinking bacteriologically contaminated waters.