



WATER SYSTEM EVALUATION FORM

FOR USE OF THE CTI 8 WATER CHLORINATOR

Compatible Technology International (CTI) has a simple device available for disinfecting drinking water in rural water systems. This chlorinator (the CTI 8) has been designed for use in specific water systems and under specific conditions, and uses solid chlorine tablets in a simple configuration of PVC tubing.

Description of the CTI 8 Chlorinator:

- Designed for use in rural areas with gravity fed water systems having a flow rate between 2 and 20 gallons per minute.
- Field-constructible with simple tools.
- Is non-electrical.
- Requires special chlorine tablets that cost between \$3 and \$6 US per month depending on the system.
- Requires regular monitoring by someone trained in its operation.
- Requires a system that is completely enclosed and piped from the water source to the user's house or to public faucets. If not completely enclosed, the system must have a functioning filtration system, sedimentation system, or both.
- Disinfects microbial contamination, for example, cholera, dysentery etc.; does not remove physical / chemical contamination, for example, arsenic, pesticides etc.

CTI would like to assist you in the application of the CTI 8 chlorinator to your system. If the above information seems appropriate to your system, please answer the following questions pertaining to the water system you are interested in chlorinating. Then send this document to CTI by email, fax, or regular mail and we will review the information and determine if the water system you describe is appropriate for the installation of the CTI 8 chlorinator.

If we reach agreement about installing a chlorinator in your system, we will provide all information needed to construct, operate, and maintain a CTI 8 chlorinator. We will also be available to answer questions on any problems that arise during the course of the project.

Please answer the following questions concerning the rural water system you are interested in disinfecting.

- **What type of water system is involved?** Spring source; river, lake, or other surface source; gravity fed system; hand pumped well; electrically pumped well; other.

- **What is the flow rate in gallons per minute (gpm)?** This can be determined by diverting the total flow into a bucket of known volume (e.g. 5 gallons) and noting the time it takes to fill.
- **Is the system enclosed in piping from the water source to the community?**
- **Does the system have a functioning filtration or sedimentation system?**
- **Is there a group (the village itself or another sponsoring group) that is able to financially support buying chlorine tablets monthly and maintaining the water system?**
- **Are there people who use the water that can be trained in simple maintenance, monitoring, and operation of the chlorinator?**
- **Is there a governmental agency or other agency that is responsible for supervising rural water systems?**
- **Has the water ever been tested for turbidity or suspended solids?** Turbidity is usually expressed in turbidity units (TU, NTU) and suspended solids in milligrams per liter (mg/l).
 - If yes, what was the result?
- **Has the water ever been tested for bacterial contamination?** Usually determined by a laboratory and expressed as the number of samples showing the presence coliform organisms *or* the number of coliform organisms per 100 ml. Coliform organisms are bacteria that may indicate the presence of other pathogens.
 - If yes, what is the level of contamination? Please include all test results.

Please include any additional comments, information, or questions, and e-mail, fax, or mail this to CTI for review.

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