

# Ozone Demand and Decay Study Sampling Protocol

## GUARDIAN RESEARCH AND DEVELOPMENT LABORATORY

For the ozone demand and decay study, provide Guardian with 2 one gallon pre-cleaned sample containers. When taking the sample, the client must keep in mind that it is very important for the water samples to be as representative of the process water as possible. The following is a suggested protocol for proper sampling.

### Preparation for Sampling

If the sample containers have not been provided by Guardian, then the use of two 1 gallon plastic water jugs are acceptable. Prepare the water jugs/bottles for sampling by rinsing them out, including the cap, 3 or 4 times with the sample water.

### Sampling from a Control Tank

- Before sampling ensure that the all system processes are operational and in nominal operating conditions.
- Find a location in the tank that would represent the bulk conditions of the water. Do not take a sample near a make up water line or some other liquid addition process to the vessel.
- Once the best location for sampling is chosen, place the sample bottle into the water with the opening facing down.
- Submerge the bottle to at least elbow depth and turn the bottle up to allow the water to partially fill it.
- Remove the bottle and dump the water out an arms distance away from the sampling location.
- Repeat this process 3 times in order to completely rinse the bottle.
- After rinsing the bottle, fill it completely to the top and replace the cap. Ensure that there is no airspace bubble in the top of the sample bottle.
- Fill all other sample bottles in this manner, wrap black electrical tape around the bottom of the cap (to prevent leaks) and place them in the insulated shipping box filled with either ice or frozen ice packs.
- Ship the samples overnight to the Guardian research lab.

### Sampling from a Process Stream

- Before sampling ensure that the all system processes are operational and in nominal operating conditions.
- At the proper sample port location(s), take a sample bottle and rinse it 3 times by partially filling it and dumping out the water.
- After rinsing the bottle, fill it completely to the top and replace the cap, ensuring that there is no air space bubble in the top of the bottle. Repeat this for any other sample bottles.
- Place the sample bottles in the insulated shipping box filled with either ice or frozen ice packs.
- **Complete the Chain of Custody form, listing any possible chemical contaminants. Insert papers into a plastic zip lock bag, seal it and place the bag inside the shipping box. NOTE: Incomplete documentation will create delays in processing.**
- Overnight ship the sample bottles to the Guardian Research and Development Laboratory.  
**Do not send to Cocoa, Florida. Samples must be shipped to the following address:**

Guardian Manufacturing R&D Laboratory • 2750 Dillard Road, Suite 12 • Eustis, Florida 32726