

September 2009

## **Photo-Cat Deployed to Treat PCB Contaminated Municipal Waste Water**

A packaged Photo-Cat system was rapidly mobilized and shipped to treat PCB contaminated municipal waste water from a Publicly Owned Treatment Works (POTW) in the state of NY. This process removes and concentrates PCB contaminated Suspended Solids (TSS) to a particle size of less than 10 nm. The remaining PCB contamination (ie. dissolved PCB) is then destroyed in a low energy, ambient temperature, emission free process. This process is applied such that all PCBs are contained or destroyed on site before the water is discharged back into the environment.

The PCB challenge involves removing PCB contaminated particulate (VSS) in the waste stream after the secondary treatment clarifier which takes the inlet PCB from 2000 ppt down to nominally 1000 ppt. The remaining PCB is then destroyed below the detection level of 65 ppt.

This Green technology requires **NO** process chemicals to concentrate or destroy the PCB. Photo-Cat **Does Not** require hazardous chemical oxidants like ozone or hydrogen peroxide and their handling, safety and residual issues.

The Photo-Cat equipment was mobilized and set to work over a 12 day period in order to meet the client's needs to comply with its consent order. Photo-Cat systems with site specific and mobile permits have been applied to PCB contamination in groundwater and industrial applications for over 10 years.

This proven process has broader applications in landfill leachate, dredging operations, oil field wastewater, and municipal wastewater for re-use.

Photo-Cat is a photocatalytic ceramic membrane process that combines the best of chemical free AOP and high flux ceramic UF filtration. Purifics is the oldest and most experienced commercial vendor of Advanced Oxidation Processes.

Purifics ES Inc. is a licensed engineering firm and a knowledge based business that provides unique systems, technology and products for municipal, industrial and remediation needs. These solutions purify, condition and control water & air to achieve Economic & Environmental Advantage.

Contact us for additional information on this and other applications.

