

INDUSTRIAL GROUNDWATER & OPERATIONS

PCB GWTP for Power Industry

Industry: Utility/Electric Power
System: 100 gpm Permanent & 400 gpm Temporary Wastewater Treatment Plant
Location: New York
Goals: Remove PCBs to Non Detect Levels of < 60 parts per trillion (ppt)

Project Overview:

Our state-of-the-art Wastewater Treatment Plant (WWTP) installed at a leading power company utilizes our proprietary Contact Clarification, Multi-media Filtration & Activated Carbon Adsorption to treat groundwater/surface water from a contaminated quarry and meet a very stringent PCB discharge criteria per USEPA/NYSDEC consent order. The proprietary technology developed by our team has been successfully treating PCB contaminated wastewater for over 7 years without discharge violation, and has been used at multiple PCB contaminated sites.

Critical Issues:

Complex wastewater w/ varied PCB levels
Variable seasonal wastewater flow rates

Stringent NYSDEC discharge limits
Fast-track, concept to completion

Vision for Solution:

- Proprietary Contact Clarification technology pretreatment in lieu of conventional Activated Carbon only for removal of PCBs associated with particles and dissolved PCBs
- 100 gpm Permanent System in the WWTP building for continuous flow and 400 gpm Temporary Trailer Mounted System for peak flows during spring snow meltdowns
- Utilize our standard products & pre-packaged system design for fast-track turnkey project delivery and performance guarantee
- PLC w/ Remote Telemetry for minimum onsite operator attention
- Modular design with expansion capability for future needs
- Direct contract with client for turnkey concept to completion of groundwater treatment plant

Project Scope:

Concept Development	Detailed Design/Engineering
System Fabrication	Controls Integration
Field Installation	Civil/Building Construction
Commission/Startup	Ongoing O&M

Equipment Description:

Floating Pump Station	Equalization Tank
Transfer Pumps	Chemical Feeds
Pressurized Reactor	Contact Clarifier
Multimedia Filters	Activated Carbon Filters
Air Compressor	PLC/Remote Telemetry

Special Features:

- PLC controlled system enables supervisory control & data acquisition from a remote site
- Regulatory Reports are auto-generated by the SCADA system
- Process monitoring include flow, level, pressure, pH, etc
- Modular expandability for future changing needs

