Lake Simcoe Water Pollution Control Plant (WPCP)

The plant consists of Preliminary Treatment, Secondary Treatment and Tertiary Treatment. The design average flow for the Lake Simcoe Water Pollution Control Plant is 4,500 m^3/d. Through equalization flow control, the plant is capable of handling different peak flows through the three stages.

Various levels as well as modes of control are provided. All pertinent equipment can be controlled through operator workstations. The plant control and monitoring system is based on three programmable logic controllers (PLCs) with two operator workstations, tied on an Ethernet network. Local panel mounted OITs (Operator Interface Terminals) are also provided.

The PLCs are GE Fanuc 90/30 series, and the SCADA software is CIMPLICITY.

Each device/unit control adheres to stringent standards for actual control as well as fault monitoring. Standard logic templates are used for all devices/units. Local/Remote control transfer from one level in the control hierarchy to another is designed to be bumpless.

Operator screens are both functional and intuitive, while taking into account client preferences and requirements.