

Standby Power Facilities Water Treatment Plant and Raw Water Intake

project description | electrical

location

Morehead, Kentucky

client

Mr. Mike Nickell, General Manager
Morehead Utility Plant Board
135 S. Wilson Ave.
Morehead, Kentucky 40351
(606) 784-5538

completion

Bidding

budget

\$600,000



The project includes the addition of a standby diesel generator and automatic switching systems to provide a backup to the water treatment plant and raw water intake utility power systems. The water treatment plant and raw water intake are at two different locations. The utility power service is 12,470 volt, and is primary metered at the raw water intake site, with overhead and underground feeders to the water treatment plant.

The design allows for a single generator to serve both sites by connection to the 12,470 volt power system. A state-of-the-art automatic pole-top switching system is provided with radio communications between the two sites. Voltage monitoring equipment detects loss of power, and automatically controls switching of the utility and generator source to prevent cross-connection. A networked communication system provides direct controls with the generator to initiate start and stop. The switch controls are also networked with the SCADA system to allow monitoring and control of the system from the operator's desk.

The generator is 1,600 KW with a sub-base fuel storage tank and sound-attenuated weatherproof enclosure. Low fuel and generator alarms are monitored by the plant SCADA system.