



Addison-Evans WPLF Control & SCADA System

Client: Chesterfield County, VA Department of Utilities

Location: Chesterfield, VA



System Features

- DYNAC® SCADA Software •
- Redundant Servers •
- PLCs •
- Microwave Data Systems •
- MAS Radios •
- Ethernet LAN •
- Modbus RTU and ASCII Protocols •
- Remote Monitoring & Control •
- Uninterruptible Power Supply System •



Chesterfield County Department of Utilities is a public utility that utilizes Transdyn's services and DYNAC® SCADA technology to serve approximately 80,000 water customers throughout the county.

Transdyn was awarded a design-build contract to design, furnish, document, configure, install, commission and test a fully integrated Supervisory Control and Data Acquisition (SCADA) system for the Addison-Evans Water Production and Laboratory Facility, reservoir, remote monitoring sites and water distribution system including storage tanks, pumping stations, metering vaults and other related facilities. Transdyn served as design consultant, construction manager, contractor and systems integrator. The control system provides monitoring and alarm functions for all sites and fully automatic, semiautomatic and manual control of the pump station sites.

The distribution SCADA phase involved the upgrade of all head-end systems and configuration for the County's water pumping, metering and storage systems while the Addison-Evans WPLF phase involved the integration of equipment, software and systems located at the Addison-Evans WPLF, reservoir and Utilities Administration Building.

Transdyn's scopes of work for both the SCADA system and the Addison-Evans WPLF included system design, project management, engineering and construction management. Transdyn also developed and configured the DYNAC® SCADA software, provided testing, training and start-up for both phases of the project.

Transdyn integrated into the distribution SCADA system the County's existing 900 MHz MAS radio network and ATM based private network, a DSL based private network connection to the O&M facilities and Utilities Headquarters for remote monitoring and control, and data warehousing.

Hardware furnished included redundant SCADA servers, workstations, system printers and peripherals, a video display workstation, and uninterruptible power supply systems.

Transdyn assumed full responsibility for all aspects of the work during the Addison-Evans WPLF phase including the design, installation, retrofit, demolition, applications programming, integration, cutover and testing efforts. PLCs were installed for data acquisition and control. Workstations, electrical subsystems, a 100BaseT plant network, and a 900 MHz Spread spectrum radio telemetry network were also furnished and installed.