



Central Contra Costa Sanitary District Distributed Control System

Client: Central Contra Costa Sanitary District

Location: Martinez, CA



System Features

- DYNAC® Software
- Redundant Servers
- Redundant Networking
- PLCs
- Remote Access
- Off-Site Alarm Paging
- Data Warehousing



Engineering Achievement

--San Francisco Bay Section of the
California Water Environment Association

Outstanding Capital Improvements Project

--California Association
of Sanitation Agencies

Central Contra Costa Sanitary District (CCCSD) is a special district that collects and cleans an average of forty-five million gallons of wastewater per day for about 440,000 residents and businesses in central Contra Costa County. The District utilizes techniques such as solids incineration and ultraviolet disinfection of water for discharge to the Suisun Bay. CCCSD's collection system manages over 1,400 miles of sewer pipeline and twenty-two wastewater pumping stations.

Its state-of-the-art secondary treatment facility can handle up to fifty-five MGD of dry weather flow and 240 MGD of wet weather flow. In an effort to find new and improved ways of treating wastewater, CCCSD replaced its chlorine disinfection system with ultraviolet disinfection, making the CCCSD facility the largest wastewater plant in the nation using this process. CCCSD also produces its own electricity through a cogeneration system that saves about \$1 million per year in electric utility costs.

Under a prime, design/build/maintain contract, Transdyn provided the system design, integration, installation, commissioning, and support services for the District's Distributed Control System. Redundant servers, workstations with multiple monitors, redundant network equipment, Modbus Plus gateways, redundant PLCs, and other peripheral equipment were provided to modernize the plant. The control system is managed by Transdyn's DYNAC® for data acquisition, process automation, data management, event logging, trending, and reporting.

The use of state-of-the-art hardware and software allows CCCSD to more efficiently operate their facility, more cost effectively maintain the system, and take advantage of future technological advancements.