



**DATE:** AUGUST 27, 2019  
**TO:** MIKE KELLEY, SUPERINTENDENT, MENDOCINO CITY COMMUNITY SERVICE DIST.  
**FROM:** RICHARD A. SAMPLE, P.E.  
**SUBJECT:** MENDOCINO WWTF – DESCRIPTION OF ELECTRICAL MODIFICATIONS

The purpose of this memo is to provide a brief summarization of the electrical modifications provided by this project.

Existing plant electrical power and control system equipment have been in service since 1975, exceeding the operational time period in which these systems can function reliably and cost effectively. The present electrical power service equipment cannot physically accommodate the addition of another building feeder load. Present control system equipment is configured with outdated components which are no longer available. Today's code and safety regulations cannot be accommodated with the existing power and control systems.

The plant electrical modifications included in the project scope include:

1. Replace plant power utility service with new having capacity to serve all original plant power loads, the addition of a Chlorine Generation Building and future potential loads.
2. For operator safety provide new technology to reduce potential fault current while power equipment is being serviced while energized.
3. Replace original plant control system with new programmable microprocessor based control system including human interface monitor screens.
4. Replace pump and motor controllers with new motor control center equipment.
5. Replace all original exposed field mounted electrical equipment, conduits and wiring with new.