**Fresno Community Regional Medical Center Commissioning Project**

Increasing population growth in the central San Joaquin Valley has put immense pressure on the existing infrastructure of the Community Medical Centers in Fresno. To continue meeting the medical needs of the community, the corporation has launched an ambitious project to build a 350,000-square-foot addition and extensively remodel its existing 450,000-square-foot downtown hospital. The project will occur over five years. One of the first steps of the project is to build a new $25 million central-plant complex to serve the entire medical campus. The central plant will house the chillers, cooling towers, boilers, domestic hot water heaters, distribution pumps, high voltage service, electrical distribution equipment, generation equipment, and medical gas systems. Excavation work has begun on the $100 million new addition, a trauma center and critical care building. A future phase of the project will remodel the existing hospital spaces.

The hospital recognized that proper planning and quality assurance strategies would be necessary to assure success on this complex and expensive design-build project. Starting in schematic design the owner retained a consultant to develop a master plan for the entire project’s electrical and mechanical specifications. This comprehensive plan was used to direct the engineers subcontracted for the actual design work under the design-build contract. Mazzetti and Associates of San Francisco, the consultant that developed the master plan, was also tasked with providing peer review of all mechanical and electrical designs as they were completed. Although they were not formally contracted as a commissioning provider at the beginning of this project, the consultant’s master plan development and peer review responsibilities resembled those of a commissioning provider. The design review process for the central plant identified two key findings, a lack of isolation valves in the chilled water loop design and inadequate controls for the emergency electrical generation system. Identifying and rectifying these issues during design allowed the team to make changes on paper—at low expense—rather than through the change-order process during construction. The entire design package is now undergoing regulatory approval by the State of California with construction expected to begin later this year.

With this level of quality assurance integrated into the design phase, both the consultant and the general contractor, Clark Construction, recognized that commissioning during construction was the next logical step to assure that the high-quality designs were implemented correctly during the construction phase of the project. The project executive for the contractor had seen positive results from three commissioned health care projects her company had worked on previously. The contractor supports the commissioning process. They see commissioning as a way to ensure that a complex project functions at peak performance when turned over to their customer and ensures that the facility’s operation and maintenance staff is properly trained to sustain this performance. After further discussions between the consultant, hospital, and the general contractor, the hospital allocated additional funds and gave the go ahead to expand the consultant’s scope of work to include commissioning of the new central plant.