

11.0 Recommendations

Based on the analysis of the Straumann USA facility, it is recommended that a DOAS airside system and ceiling radiant panel parallel system be installed. The chiller plant analysis determines that if the chilled water plant is to be renovated, it would be most economical to replace current electric centrifugal chillers with updated models rather than switching to direct-fire absorption plant. A direct-fire absorption chiller may be a more practical solution for a building that would be able to utilize simultaneous heating and cooling, however the analysis of Straumann USA proved that for this facility such an option would not have been a beneficial investment. Changing the current free cooling piping arrangement from a series to a parallel arrangement would not be recommended. The potential exists to gain a few extra hours of free cooling, but the additional expense of piping changes and additional controls along with training an individual to operate the system would not result in attractive investment for the owner. Such a system could be recommended for a building with a smaller base cooling load or different climatic conditions, however it should be evaluated on a case by case basis. These recommendations have been made largely in part on the basis of low life cycle cost as well as reducing annual energy costs for the Straumann USA facility.