ABSTRACT

There are many considerations for implementing refrigeration system, such as: economic, operation and comfortable point of view and maintenance system. Compare to absorption refrigeration system, vapor compression refrigeration system seem more common to install at commercial building, industry or domestic housing.

Evaluation between vapor compression refrigeration system and absorption refrigeration system are based upon the benefit of vapor compression refrigeration system in term of initial investment cost and simplicity of installation. However evaluation based on performance characteristic, maintenance, comfortable and economic point of view are nonetheless. Moreover installation development of absorption refrigeration system has become more promising as the dimension is more compact and the performance has been improved. Therefore it gives a great opportunity to boost the application of absorption refrigeration system for air condition in commercial buildings.

Data operation for adjusting vapors compression refrigeration system with double effect direct fired absorption refrigeration system as air condition in a tall building has been collected and analyzed.

Double effect direct-fired absorption refrigeration system can substitute vapor compression refrigeration system without any major difficulty. In fact this system is environmentally friendly and reduce electricity cost in the range of 80 %. From the maintenance approach it is simpler. Finally, installing this system can be considered as a suitable alternative for increasing efficiency of refrigeration system in commercial building.