

Commissioning – 15-Best Practices to Ensure Successful High Performance Projects Glin W. Jay, CFM, PMP, IFMA Fellow

Implementing the 15-Best Practices of the Commissioning process from day-one of design to end of project first year warranty, coupled with green building sustainable design and potential LEED Certification will help establish a quality facility that is not only energy efficient but can sustain the high performance results owners intended from the beginning.

Commissioning is defined by the Building Commissioning Association as the systematic process of assuring by verification and documentation, from the design phase to a minimum of one year after construction, that all building facility integrated systems perform interactively in accordance with the “Owners Intent” Design Intent, Constructed Intent and in accordance with the owner’s operational needs, including preparation of O&M personnel.

Green Design is defined as design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and occupants in five broad areas: Sustainable sites; Water efficiency; Energy efficiency and renewable energy; Conservation of materials and resources; and Indoor environmental quality (IEQ).

LEED, Leadership in Energy & Environmental Design, is a leading-edge system for designing, constructing, operating and certifying the world’s greenest buildings. LEED rating system represents the U.S. Green Building Council’s effort to provide a national standard for what constitutes a “green building.”

A building CANNOT be Designed and Constructed “Green” and be LEED Certified without some level of Commissioning.

15-or-so Best Practices Thoughts and Ideas:

1. Project Owner is committed to Green / LEED Certification
2. Green / LEED / design & Cx process are implemented during Discovery
3. Energy Modeling is utilized to quantify sustainable energy management
4. Design Intent Document is developed in design and upgraded throughout construction
5. Design Documentation is reviewed by Peer / Cx / CM / O&M groups
6. Green / Cx Contractor Training is conducted at Pre-Bid meeting to help understanding of sustainable component impacts
7. Cx is responsible for: Commissioning; As-Built document monitoring; Q/A; TAB
8. O&M Documentation is submitted just after approved submittals
9. Cx develops & implements Pre-functional checklists and Functional Performance tests
10. Energy Modeling baseline is re-confirmed at conclusion of Cx / TAB
11. Cx assists with population & helps implement Computerized Maintenance Management System

12. Cx develops & implements System Wide Training for O&M personnel
13. Cx is responsible for Assembly & submission of all project closure documentation and System manual
14. Cx is responsible for monitoring Cx system warranties for first year
15. Cx is responsible for monitoring Sustainable components each quarter for first year