The Commissioning Process for Delivering Quality Constructed Projects

Daily Agenda: In-person Courses

MONDAY
7:30  Registration / Check-in
8:00  Welcome and Introductions
8:30  Overview of the Commissioning Process (CxP)
     •  What is the ASHRAE Guideline 0 commissioning process?
     •  Current best practice
     •  What is a quality delivery process?
     •  Benefits of the commissioning process
     •  What occurs in each phase of project delivery?
11:15 Pre-Design Phase Commissioning Tasks (Part 1)
     •  Developing the owner’s project requirements (OPR)
     •  Owner’s workshop: preparation and participants, Nominal Group Technique (NGT), procedures and results
12:00 Lunch
1:00  The Owner’s Project Requirements Workshop
     •  Executing an OPR workshop
     •  Determining which questions to ask – project success criteria
     •  Class activity: workshop in action
3:15  Pre-Design Phase Commissioning Tasks (Part 2)
     •  Planning the CxP effort
     •  Commissioning plan fundamentals, key milestones, structure
     •  Evaluating the benefits of pre-design phase involvement
     •  The CxP as a strategic quality plan
4:15  Workshop: Defining CxP Needs
5:00  Daily Adjournment

TUESDAY
8:00  Workshop Reports
8:15  Developing the OPR Document
     •  Review of key OPR concepts
     •  Typical information required
     •  Steps in document creation
     •  Review of example document
9:45  CxP Activities in the Design Phase
• Pre-design meetings
• Design checklists
• Basis of design development
• CxP design review process
• CxPlan update

10:45  Design Review Workshop
• Group workshop using the four steps of a CxP design review procedure

12:00  Lunch

1:00  Design Review Workshop continues

1:30  Commissioning Specifications
• Format options
• Types of requirements: contractor participation; maintainability; checklist implementation; shop drawings, training, and systems manual; testing and verification

3:00  Commissioning Process Checklists
• Purpose, goals
• Use in all project phases
• Construction checklists: development, tracking methods, verification, statistical sampling, checklist work session

4:00  Systems Manual and Training
• Systems manual (role in all phases)
• Training (role in all phases)

4:55  Daily Adjournment

5:00  University of Wisconsin CxP Certification Exam Review (part 1, for 1 hour)

WEDNESDAY

8:00  Construction Phase CxP Tasks
• Pre-construction activities (pre-bid, workshops, partnering)
• Cx meetings and coordination, role of the CxA
• Tracking commissioning activities
• Cx schedule
• Testing
• Commissioning reports
• Benefits/issues log

9:30  Commissioning Process Tests
• Developing test protocols
• Confirmation of readiness
• Implementation steps
• Documentation

10:30  Test Development Workshop
11:20 Integrating CxP with Contractor Efforts
- Quality processes
- Overlaps and gaps

12:00 Lunch

1:00 Electronic and Web-Based Commissioning Tools
- Computer tools for site tracking
- Electronic systems manuals

1:30 Acceptance Phase, First Year of Operation, and Beyond
- Training
- Systems manual
- Project CxP report(s)
- Warranty review and seasonal testing
- On-going commissioning

2:00 Analyzing the Benefits of Commissioning: Case Studies
- Scope of commissioning
- Detailed cost analysis
- Benefits and lessons learned

2:45 Special Topics in the CxP
- Review of LEED Cx process
- Review of existing building Cx process

4:00 Course Adjourns