The Commissioning Process for Delivering Quality Constructed Projects

Daily Agenda

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

2:45  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)

4:45  Daily Adjournment

4:50  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

10:45  Test Development Workshop
11:30 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