
BEYOND
SMART CITIES
CERTIFIED COMMISSIONING AUTHORITY
CXA EXAM PREP
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GREEN BUILDING COMMISSIONING
COMPLETING WARRANTY PHASE ACTIVITIES
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LEARNING OBJECTIVES
Facilitate off-season testing
Troubleshoot facility issues
Completing Warranty Phase Activities
Ongoing and Monitoring -based Commissioning
Facilitate end of Warranty Meeting

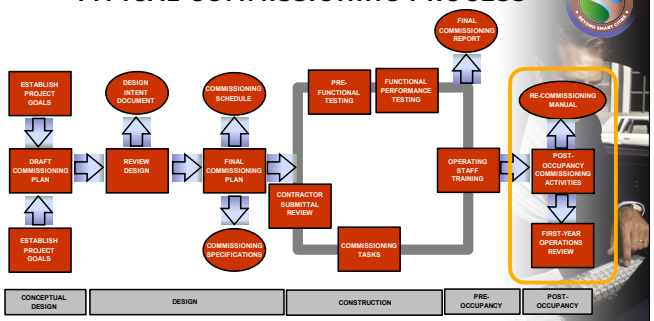
COMPLETING WARRANTY PHASE ACTIVITIES

The Building Commissioning formalises the review and integration of all project expectations during the planning and design, construction, testing/verification and turnover/ occupancy phases through inspection and functional performance testing, as well as the oversight of operator training and record documentation.

The commissioning process is not complete until the off-season testing is completed and the systems manual is completed and transferred to the Owner. At that time, a final commissioning report is developed including the final issue logs with any open items as accepted by the Owner.

Part of the plan must include training for staff about the owner's project requirements ,the basis of design ,and design philosophies developed by the design professional.

TYPICAL COMMISSIONING PROCESS



FACILITATE OFF-SEASON TESTING

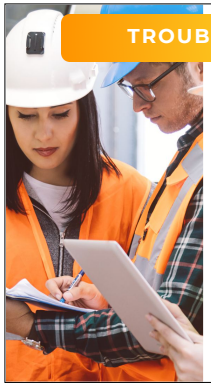
the most common reason is that some functional tests cannot be performed before occupancy either due to seasonal variables or because the test will not accurately measure the information outside of the facility's normal planned-for workload

The Commissioning Authority should provide the owner with a schedule of system and intersystem function tests that will be performed after occupancy has begun.

Usually the Warranty period is 12 months after Substantial Completion has been accepted by the owner.

As part of the Systems' Manual for the project, there should be a Warranty summary worksheet that outlines the warranty information for workmanship and for each piece of equipment.

TROUBLESHOOT FACILITY ISSUES



Besides any Commissioning tests that are deferred, or needed at or before the Warranty period is up, the Commissioning Authority may be involved with several tests based on the actual operating conditions of the building after occupancy has begun. These functional changes and their associated tests are called optimizations and adjustments.

- ☑ Changes to the lighting and HVAC control systems, based on actual usage patterns
- ☑ Fine tuning of control monitors and loops to ensure they are in the best place for optimum response accuracy and timing
- ☑ Reset schedules for pressure and temperature to ensure the optimum comfort of occupants for the least amount of energy

ONGOING AND MONITORING - BASED CXA



To use commissioning to address changes in facility occupancy, usage, maintenance and repair. Make periodic adjustments and reviews of building operating systems and procedures essential for optimal energy efficiency and service provision.

- ☑ Implement an ongoing commissioning program that includes elements of planning, system testing, performance verification, corrective action response, ongoing measurement and documentation to proactively address operating problems
- ☑ Create a written plan that summarises the overall commissioning cycle for the building by equipment or building system group. The ongoing commissioning cycle must not exceed 24 months.

FACILITATE END OF WARRANTY MEETING

Construction Manager shall provide warranty services for the work performed for a full twelve (12) months after the issuance of a Certificate of Substantial Completion by the Architect. Just before the warranty period expires, Construction Manager shall attend an on-site meeting with the Owner and Project Manager to ensure that all warranty issues have been identified and properly remedied

Warranty and Seasonal Follow-up

- ☑ Interview Personnel – Discuss Operations – Evaluate Training Needs
- ☑ Seasonal Testing – As Needed
- ☑ Check Warranties – Claim Submissions Req
- ☑ Review Utility Bills – Compare to Energy Star – Compare to OPR
- ☑ Review Trend Data – Identify Issues – DevelopResolution – Optimization


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