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*Title: General Commissioning Requirements  
Guidance for Section 01 91 00*

## **GUIDANCE for SECTION 01 91 00 – GENERAL COMMISSIONING REQUIREMENTS**

This Specification section is intended to define terms and lay out general procedures and requirements for commissioning. It is to be supplemented by a detailed commissioning plan, and, if appropriate depending on the complexity of the project, specific commissioning sections detailing requirements for commissioning plumbing, HVAC, electrical, and other systems.

Although the requirements in this specification are only binding for parties that are contracted to carry out the specified work, the owner and other members of the project may be expected to support the commissioning process by sharing information and participating in meetings. Therefore, information is provided regarding the roles of other members on the design team to ensure successful coordination of the commissioning process.

### ***Relationship to LEED***

The commissioning requirements outlined in this specification are those that involve the contractor. This specification includes requirements that should be sufficient to meet the LEED-NC and LEED-EB commissioning prerequisites. The LEED-NC EA credit 3 for “Enhanced Commissioning” includes additional requirements that exceed the scope of this specification. The primary task that is not included in this section is design-phase commissioning, which would have to have been met before the construction documents are finalized. Along these lines, both the LEED-NC commissioning prerequisite and credit 3 require an “Owner’s Project Requirements” (OPR) document and a Basis of Design (BOD) document to be completed prior to the mid construction document phase.

To meet the additional LEED credit, the commissioning process would have had to start during the design phase, and include additional requirements. This specification can be considered as one part of this larger commissioning process, to be carried out by one or more commissioning authorities (CA).

An additional related credit is not addressed in the specifications because it exceeds the temporal scope of the document. LEED-NC EA credit 5 for “Measurement and Verification” credit requires development and implementation of a measurement and verification (M&V) plan for at least one year of post-construction occupancy.

### **Table 1: Responsibilities for Commissioning Activities**

Responsibilities.

	Section 00 19 00 Specifications	LEED EA Prerequisite 1	LEED EA Prerequisite 1 & Credit 3
Identify Commissioning Authority	Owner	Owner or Project Team	Owner or Project Team
Specify commissioning requirements in construction documents	Project team, specifically specification writer	Project team or CA	Project team or CA
Review drawings, models, and specifications before 50% completion for conformance with owner's requirements	Not applicable (precedes specification)	Not required	CA
Develop and implement a commissioning plan	CA and project team	CA or project team	CA or project team
Develops startup plans, formats, and checklists for contractors	CA	CA, contractor, others	CA, contractor, others
Complete checklists and perform startup and initial checkout	Contractor	Contractor or CA	Contractor or CA
Develop functional tests	CA	CA	CA
Execute functional testing	Contractor, CA, Engineer	CA, Contractor	CA, Contractor
Review applicable submittals, verify proper installation and adequate checkout by installing contractors	CA	Not required	CA
Test and document proper installation and performance of equipment and systems	CA	CA	CA

Verify that onsite O&M documentation is complete and/or develop systems manual.	CA	Not required	CA and Project Team (systems manual)
Verify Owner's operating personnel adequately trained	CA	Not required	CA and CT
Final commissioning report	CA	CA	CA
Review building operation after completion	Seasonal - CA	Not required	Within 10 months - CA

**Resources**

AABC Commissioning Group (ACG), a subsidiary organization of the Associated Air Balance Council (AABC), offers "Certified Commissioning Authority" designation: <http://www.commissioning.org/>

Building Commissioning Association offers "Certified Commissioning Professional" designation: <http://www.bcxa.org>

Portland Energy Conservation, Inc. <http://www.peci.org/>