

NE Chapter BCA

Inaugural Meeting

Cx Then and Now

November 2, 2005



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What is Commissioning?

**Commissioning
is
Quality Assurance
in
Building Construction**



Why Commissioning?

The growth of Commissioning can be directly traced to the growth in the complexity of buildings.

- DDC Controls Systems
- Energy Conservation
- IEQ Awareness



A Brief History of Commissioning

- 1975/1980—Bonneville Power Administration IBP/ICP Buildings Programs
- 1980s--Increasing Use of DDC Building Controls
- 1985—BPA Works with ASHRAE to Convene First Cx Committee

A Brief History of Commissioning

- 1989--October-BPA Energy Edge meeting plans Cx pilot project to assure ECM savings
- 1989-ASHRAE Cx Standard 1-1989R, TC 9.1- Large Bldg A/C Systems
- Charles Dorgan, Carl Lawson, Cedric Trueman
- 1989—First edition of BPA “Building Commissioning Guidelines”

A Brief History of Commissioning

- 1992—Second Edition of BPA Guidelines
- 1992—First PECCI National Conference on Building Commissioning
- 1995---ASHRAE Integrated Building Commissioning Course
- 1996---Second ASHRAE Guideline 1-1996, “The HVAC Commissioning Process”

A Brief History of Commissioning

- 1996-First Caucus of the Building Commissioning Association (BCA)
- 1999-NCBC Inaugurates the Benner Award in honor of Nancy Benner, seminal organizer
- 2000-USGBC LEED mandates Cx

NASFA CX Guidelines Out--2002

- National Association of State Facilities Administrators
- Cx Guidelines in the works for 2 years
- Aimed at public sector and private sector requirements, 200 pages
- Order at <http://www.nasfa.net> or 859-244-8181
- \$40/\$100 for electronic version

Seattle Energy Code Mandates Cx 2002

- Commissioning Plan
- Systems Testing and Balancing
- Equipment Functional Performance Testing
- Controls Functional Performance Testing
- Post Construction Documentation
- Final Commissioning Report.

Washington/Nevada Energy Codes 2002/2005

- Tested to ensure controls, equipment and systems are calibrated, adjusted and operate per plans and specifications. Shall be functionally tested
- Buildings **shall not be issued a final certificate of occupancy** until Cx complete



GSA Guideline—2005

- Reinforces Federal Commitment to Cx
- Available Free of Charge on the Web



2005—ASHRAE Guideline 0- 2005

- First of an Entire Family of Cx Guidelines
- Guideline 1—HVAC Currently in the Works
- Working with 10 other organizations under leadership of NIBS
- Eventually Cover All Parts of the Building

2005—LEED-NC v2.2

- Firmed up Definition of CxA Qualifications
- Relaxation of Third Party Requirement for Under 50,000 sf
- Concentration on Energy, Water Focus is Less
- Training/O&M Moved to Extra Credit

History of Commissioning--BCA

- 2002—SE BCA chapter
- 2003—NW BCA chapter provisional
- 2003---BCA Certification Beta Test
- 2004---BCA Certification release
- 2004---District of Columbia chapter
- 2005—NE Chapter

BCA/NEEA Internship Program 2003

- BCA and NW Energy Efficiency Alliance
- Shortage of qualified providers
- 5-months of training, experience, stipend
- Week-long, in-depth training program
- \$1,000/month plus salary from employer

Other LEED Cities 2004/2005

- Atlanta, Austin, Boston, Boulder, Chicago
- Dallas, Los Angeles, Portland, San Diego
- San Francisco, San Jose, Seattle
- Also, Entire States of Washington and Nevada (all Public Funded Buildings)

Join BCxA

- BCxA has gone to professional society with individual memberships
- \$50 to \$160/year individual
- Access to listserv information service
- Excellent training

Thank You for Coming!

Brought to you by the
NE Chapter of the BCxA

Ron Wilkinson, PE

Dome-Tech Commissioning