Introduction to ASHRAE Standard 202
Commissioning Process for Buildings and Systems
Outline/Agenda

• Development History
• Difference to ASHRAE Guideline 0
• Major Mandatory Elements
• Future Developments in Standard/Guideline Arena
Development History

- 1982 – ASHRAE forms Cx committee
- 1989 – ASHRAE Guideline 1 first published
- 1996 – ASHRAE Guideline 1.1 replaces 1989 version
- 2000 – ASHRAE joins with NIBS to develop a universal Cx process
- 2005 – ASHRAE/NIBS Guideline 0 published
- 2006 - NIBS Guideline 3 for Envelope Cx published
- 2007 – ASHRAE Guideline 1 revised
- 2007 – ASHRAE forms Existing Building Cx Guideline Committee
- 2012 – NIBS Guideline 3 for Envelope Cx
Development History

- ASHRAE and NIBS Split the process from the content, so 0 is the process regardless of system

  **Process**
  - GL 0 – New Buildings
  - GL 0.2 – Existing Buildings

  **Application**
  - GL 1.1 HVAC
  - GL 1.3 Training
  - GL 1.4 Sys. Manual
  - GL 1.5 Smoke Ctrl
  - GL 3 Envelope

Published

In development

Development History

• Code requirements:
  – 2007 CA Green Bldg Code (not adopted)
  – 2010 CA Green Bldg Code
  – Require Commissioning

• City adoption
  - Cities, Agencies adopt their own green code
  - Often based on LEED
  - Require Commissioning
Development History

- Code requires normative language
- Guidelines are written in non-normative language
- No real detail in code as to how process is to be executed
- Other Standards (like ASHRAE Standard 189) also need language for Cx and cannot reference a Guideline for content
Development History

• Standard 202 developed to address the need for a document with more detail / content for use by other publications

• Standard approved at June 2013 meeting
  – Not yet in bookstore.
  – Second public review draft online at https://osr.ashrae.org/Public Review Draft Standards Lib/202P_2ndPPRDraft(ChairApproved).pdf
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Difference to Guideline 0

• Mandatory role for owner in defining requirements
• Owner **shall** define OPR prior to the development of the architectural program
• Is a project that does not have an OPR prior to the architectural program therefore not code compliant? Does the site get red-tagged? Forever?
Difference to Guideline 0

• Commissioning Process is much harder to assess on a code-compliance basis than rules typically found in CBC, CMC, CPC, NEC etc.

• AHJ now has more to go on but will be several years before owner awareness, general practice and enforcement “catch up"
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Major Elements of Standard

• Cx roles and responsibilities
  – Have to be part of AE team contract
  – Include all activities of standard

• Determine systems which get Cx
  – This is to a large degree also mandated by CalGreen and LEED

• OPR, Cx Plan, Checklists, BOD, Cx Specs
Major Elements of Standard

• What LEED had as optional for enhanced Cx is now base scope in Std 202:
  – Design review = Commissioning review against OPR. Not peer review, not code review
  – Submittal Review
• Testing
• Issues Log (was not formally addressed in CalGreen or LEED)
Major Elements of Standard

• Systems Manual
  – More detail than CalGreen
  – Not required in LEED, optional enhanced Cx
  – Facility Guide mandatory

• Testing

• Issues Log (was not formally addressed in CalGreen or LEED)

• Training
Major Elements of Standard

• Post-occupancy and warranty-period Cx
  – Seasonal testing and additional training
  – Contractor call-backs

• Not quite clear how:
  – Contracts extend 12 months past hand-over to cover activities during warranty period.
  – AHJ signoff for code compliant project is completed once Std 202 is part of code
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Future Developments

- Process is mandatory, application details per system are not

- Process

- Application
Future Developments

• Fairly “full” market of guidelines and need for further clarification of which documents carry what type of authority, and how they are to be used. What happens to GL 0?

• Large crowd of other documents
  – ICC: G4-2012, ACG Cx GL
  – NEBB, BCA, NFPA, GSA,
  – ISPE, IEC
  – CCC!
Questions?