SMACNA/SMWIA Commissioning for California Commissioning Collaborative

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HVAC Systems Commissioning

- HVAC Systems consume considerable energy
- HVAC Systems are critical to occupant comfort.
- HVAC Systems are among the most complex and interconnected of all building service systems.
SMACNA / SMWIA

- Both are recognized as experts in HVAC field.
- SMACNA provides clearest possible guidance to contractors from pre-construction through final testing and balancing & commissioning.
- SMWIA provides highly skilled labor needed throughout the fabrication, construction and testing phases of an HVAC Project.

SMACNA / SMWIA

- The SMACNA / SMWIA partnership provides the team of qualified experts necessary for reliable HVAC System Commissioning.
- SMACNA standards, manuals and procedural guides are specified in HVAC specifications.
- SMACNA Publications cover all aspects of HVAC
  - Design,
  - Fabrication,
  - Installation
  - Testing, Adjusting & Balancing
  - Commissioning.
SMACNA Commissioning

- “HVAC SYSTEMS COMMISSIONING MANUAL” published by SMACNA provides the contractor with a comprehensive yet flexible approach to commissioning that can be applied to any commissioning project.
- Level 1, Basic Commissioning
- Level 2, Comprehensive Commissioning
- Level 3, Critical Systems Commissioning
- Re-Commissioning (existing buildings)

HVAC SYSTEMS COMMISSIONING MANUAL

- Level 1, Basic Commissioning
  - Preparations
  - Commissioning Plan
  - Pre-Start Checks
  - Functional Performance Tests
  - Operations Instructions and Demonstration
HVAC SYSTEMS COMMISSIONING MANUAL

- Level 2, Comprehensive Commissioning
  - Program, or Pre-Design Phase
  - Design Phase
  - Construction Phase
  - Acceptance Phase

- Level 3, Critical Systems Commissioning
  - Critical Applications
  - Commissioning Organization
  - Level 3 specific procedures
HVAC SYSTEMS COMMISSIONING MANUAL

- Re-Commissioning (existing buildings)
  - Preliminary Investigation
  - Survey and Documentation Phase
  - Surveys to Confirm Existing Documentation
  - Surveys to Produce New or Revised Documentation
  - Analysis
  - Modifications
  - Re-Commissioning Tests
  - Documentation and Training

SMACNA / SMWIA

- SMWIA Members receive extensive training available at over 165 joint labor/management sponsored regional training centers.
- Apprenticeship programs along with Journeyman upgrade classes produce the skilled technicians required by the complexity of modern HVAC systems.
Sheetmetal California Statistics

- 625-SMACNA Contractors
- 16,000 SMWIA Members
- 15 Joint Apprenticeship Centers Training
- With the capacity to train 250-500 technicians a year

ITI / NEMI / ICB

- The National Energy Management Institute explores potential markets for the Sheetmetal Industry
- The International Training Institute (ITI) for the Sheet Metal Industry is responsible for training technicians.
- The International Certification Board (ICB) oversees the specialized certification programs for contractors, supervisors, and technicians.
The Commissioning Supervisor

- Starts out as an ITI trained sheet metal worker, certified as a Testing, Adjusting and Balancing (TAB) Technician.
- Specializes in HVAC Service or TAB
- Participates in NEMI’s “TABB Certified” programs in commissioning and life safety systems and passes comprehensive testing at the supervisor level.
- Meets all criteria defined by the ICB and is certified as a “Commissioning Supervisor”.

Summary

- SMACNA’s comprehensive commissioning approach can be adapted as needed, as specified, or as project costs dictate.
- The SMACNA HVAC Contractor is qualified to commission projects at all levels.
- Having the largest and most complex building systems makes the HVAC Contractor the most likely choice for commissioning agent.
- The SMWIA field technicians are the best trained, best qualified and have the most “hands on” experience with the most complex building systems.
Questions?
Thank you!

Jim Page
International Training Institute
601 N. Fairfax St., Suite 240, Alexandria, VA 22314
(562) 429-7361, jpage@sheetmetal-iti.org, www.sheetmetal-iti.org

John Wimer
National Center for Energy Management and Building Technologies
601 N Fairfax St., Suite 250, Alexandria VA 22314
703-499-3352, jwimer@ncembt.org, www.ncembt.org