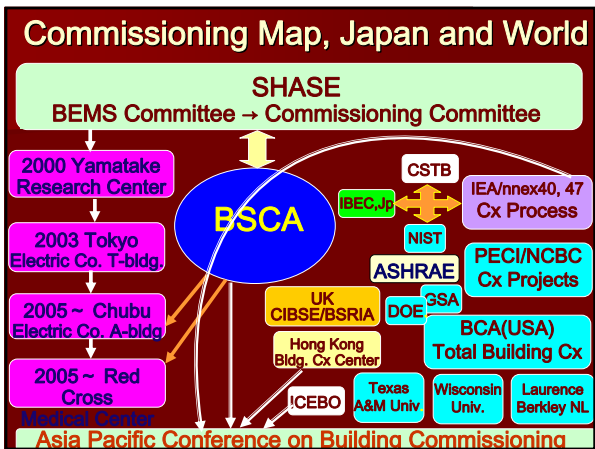


Promoting Commissioning Process in Japan

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- Introduction and Background
- Activities for Promoting Commissioning Process
 - SHASE Activity for Commissioning Guideline
 - IBEC Activity for IEA/Annexes
 - BSCA Activity for Promoting Commissioning Business
 - Commissioning Projects before BSCA
 - Commissioning Projects after BSCA
- International Activities on Building Commissioning
 - Participation to NCBC
 - IEA / Annex 40 and 47
 - APCBC and HKCxC



Social Backgrounds

- Vain nostalgia for virtuous way of thinking
- Immature social recognition on Cx
- No monetary incentive for Cx implementation
- Strongest vested rights of A&E license
 - First class architectural engineer (A&E), different from international trend on A&E licensing system
- Unclear definition of TAB or TAS
 - No specified occupation for TAB works as in USA
- Owners' lack of understanding / neglect on O&M's role and operating energy / cost at program phase

SHASE Activity for Commissioning Guideline

- Cx WG, BEMS Committee, 1997
- Commissioning Committee, 1999 ~
- Commissioning Process Guideline, 2005
 - Guideline
 - Tools
 - TAS and FPT
 - MQC (Model Quality Control)

SHASE Guideline on Cx Process

1. Object of the guideline
2. Scope
3. Definition of terminology
4. Various Cx process and applications
5. Organization and role sharing
6. Cx points at program and design phases
7. Cx points at elaboration phase
8. Cx points at construction phase
9. Cx points at post-acceptance step
10. Cx points at operation phase

SHASE Guideline on Cx Process...continued

- References
- Annexes:
 - Annex-1 Division of Cx process phases and steps, marking event at the division, principal procedures and kinds of commissioning process
 - Annex-2 Detailed explanations of standard flowchart of procedures for Cx process
 - Annex-3 Organization for Cx process
 - Annex-4 Model quality control matrix, MQC
 - Annex-5 Responsibility of CA and CRP
 - Annex-6 Relationship among documentations for Cx process
 - Annex-7 Model document of RFP on Cx process
 - Annex-8 Model document of Cx plan
 - Annex-9 Division and responsibility among TAS and FPT
 - Annex-10 Definition and explanation of terminology
- Referencing documents (28 model documents and templates)

Actual Projects of Initial Cx Process

■ Yamatake Research Center

- The first approach
- Small and short term construct, but complicated systems
- Begins at construction phase and continued continuous Cx three years after completion.
- Obtained knowledge and data were sent to SHASE committee for establishing guideline.
- Recognized importance of Cx of Program and Design phases.
- Actual amount of Cx works was analyzed.
- CA first experienced FPT.



Actual Projects of Initial Cx Process

■ Tepco Tachikawa Building

- Based on research activity for establishing in-house Cx procedures for Power company
- Large but limited floor HVAC and energy system was targeted.
- Begins at construction phase and continued for two years after completion.
- Created model documents and templates for implementing Cx process.
- Three levels of quality in Cx process was classified.
- Each procedures was discussed among research committee.



Actual Projects of Initial Cx Process

■ Red Cross Medical Center

- First and complete HVAC and energy system Cx., by BSCA.
- Large and complex medical facilities
- Begins at program phase and now at the design development stage
- Optimal energy system selection was also asked to propose and commission as a specialized task in addition to performing normal Cx process.
- Design professional had been already determined when Cx was asked to take charge.
- Documenting Owner's program and OPR was the first work to set.



BSCA, Japan

Building Services Commissioning Association, NPO

- Established in August, 2004, as NPO.
 - Corporate (supporting) members: 14 and
 - Individual members: 90, in April, 2006
- Main Activities
 - Establish practical guidelines, model documents and templates contracting provision, fee standard, etc.
 - Development of practical Cx tools
 - Social enlightenment through lectures and literatures
 - Propose/establish qualification and certification
 - Education and training for Cx engineers
- Contracting research and/or actual Cx projects, in order to take advantage for establishing technical infrastructures as above

SHASE and BSCA, Work Sharing

- SHASE Cx Committee proposed the board of directors that further activity for commissioning should be viewed as the society.
- SHASE board of directors admitted the proposal after studying possible work sharing and scope of cooperation.
- Basically the same term would be used but SHASE stands on academic stance and BSCA stands on practical business stance.
- Thus SHASE and BSCA will make effort to bring up commissioning business and provide either standards and tools to the market.
- It should be noted that both government aid and social recognition are very poor, but that practical engineers' minds desperately welcome the idea.

An idea for qualification system

- BSCA is viewing to initiate Cx qualification activities in fiscal 2006.
- Three stages of licensing is considered in my brain.
 - CxAC Candidate, who is the candidate for CA when selected as an independent Cx manager for a specific project
 - CxPE, who is the candidate for CxA after fulfilling required experience, and expert for Cx technology together with a certain level of managing capability
 - CxTE, Who will be the candidate for CxPE, but rather the field technician working under CxPE
- It should be noted that no specialized TAB engineers ever exist in Japan in contrast to USA.

Viewing international conference for Asia Pacific

- Asia Pacific Conference on Building Commissioning, APCBC has been planned to kick-off in Shenzhen in Nov. 6-8, together with
 - Annex 47, IEA/ECBCS
 - ICEBO 2006
- HKBCxC, Hong Kong Building Commissioning Center, is to co-sponsor and other bodies from mainland China and Asian countries are expected to participate.
- Commissioning bodies such as PECC, BCA, etc. in USA are desired to participate in this conference.

Thanks for your kind Attention!

- Join us BSCA membership, if you are interested in Asian Cx market, though poor now, but prospective in the future.
- Join the ICEBO 2006 and APCBC, a joint conference.
- Let us enhance international cooperation, exchange information and technologies on building commissioning.
