Programs for the Albuquerque Meeting (June, 2010):

Seminar 7 (Intermediate)
Sunday, June 27, 8:00 - 9:30 AM

Commissioning Mission Critical Data Centers
Sponsor: *7.9 Building Commissioning, 9.9 Mission Critical Facilities, Technology Spaces and Electronic Equipment*
Track: *Data Center and High Density Cooling*
Chair: *Roger Lautz, P.E., Member, Affiliated Engineers, Brookfield, WI*

Reliability-centered commissioning service is crucial to avoid down-time and to maintain energy efficiency for mission critical data center facilities. The unique challenges of commissioning, re-commissioning and retro-commissioning data centers and other mission critical facilities are addressed.

1. Reliability-Centered Commissioning Service for Mission Critical Data Center Facilities
Yanzheng (Don) Guan, Ph.D., P.E., Reliatech, Reston, VA

Even though a not frequently discussed topic, reliability-centered commissioning service is crucial to avoid down-time and to maintain energy efficiency for mission critical data center facilities. The unique challenges of commissioning, re-commissioning and retro-commissioning data centers and other mission critical facilities will be addressed in the seminar. Additionally, in an effort to incorporate commissioning as part of the sustainable project delivery process, we are developing an innovative "paperless" commissioning technology, which could eliminate much of the paper-intensive process and integrate commissioning with data center facility service and management.

2. Data vs. Dorm: Mission Critical Data Centers and Residential Hall LEED Gold Case Studies
James Vallort, P.E., Member, Environmental Systems Design, Chicago, IL

In our experience, the commissioning process for a residential hall that is pursuing LEED Gold status presents a set of issues that are surprisingly similar to the issues raised in the process of commissioning a mission critical data center. While implementation is customized to each application, a solid commissioning process can be applied to both. A case study of commissioning for a data center and a residence hall will be presented highlighting the common process steps and resulting benefits for each facilities unique use.

Seminar 36 (Intermediate)
Tuesday, June 29, 9:45 - 10:45 AM

Retro-Commissioning: The Process and the Benefits
Sponsor: *7.9 Building Commissioning*

Track: *Living with HVAC&R Systems*
Chair: *Sarah E. Maston, P.E., Member, RDK Engineers, Andover, MA*

The implementation of a retro-commissioning process will provide lasting positive results for your facility. Retro-Cx capitalizes on new technologies and strives for improved occupant comfort and indoor environmental quality while evaluating changes based on life-cycle cost.

1. Important Measures Identified After the Existing Building Commissioning Assessment
David E. Claridge, Ph.D., P.E., Fellow ASHRAE, Texas A&M University, College Station, TX

Building operators and owners are accustomed to energy audits that provide a list of potential retrofits accompanied by the expected cost and savings for each measure. They then select the measures they wish to have implemented based on this listing. Our experience indicates that the initial EBCx assessment can effectively identify the overall savings expected from a existing building commissioning project, but may not effectively provide a good estimate of the savings from individual measures. In fact, some effective measures emerge only during the EBCx process.

2.Retro-Commissioning: Real Life Benefits and Experiences
James Vallort, P.E., Member, Environmental Systems Design, Chicago, IL

The implementation of a retro-commissioning process will provide lasting positive results for your facility. Retro-Cx capitalizes on new technologies and strives for improved occupant comfort and indoor environmental quality while evaluating changes based on life-cycle cost. Case studies of retro-commissioning multiple buildings will also be reviewed to show some common opportunities for energy savings and IEQ improvements.

Seminar 43 (Intermediate)
Wednesday, June 30, 8:00 - 9:30 AM

Commissioning Certifications: Which Is Which?
Sponsor: *7.9 Building Commissioning*
Track: *Living with HVAC&R Systems*
Chair:*Sarah E. Maston, P.E., Member, RDK Engineers, Andover, MA*

The commissioning industry has developed several commissioning provider certifications sponsored by many different organizations, including ASHRAE, the University of WI, NEBB, ACG and BCA. Join us as these organizations highlight the benefits and requirements of each certification program.

1. Commissioning Certifications Sponsored by the University of WI
Joy E. Altweis, P.E., University of Wisconsin, Madison, WI

The University of Wisconsin—Madison, Department of Engineering Professional Development offers individuals the opportunity to gain a marketable, independently recognized certification as a professional knowledgeable in the commissioning process. Three unique certifications offer applicants recognition for their skills, through a combination of training, examination, and proof of professional experience. This presentation will explain the available certifications and qualification requirements.

2. Commissioning Certification Sponsored by AABC Commissioning Group (ACG)
Jim Magee, Associate Member, Facility Commissioning Group, Nicholasville, KY

Jim will be presenting on the qualifications and benefits of the commissioning certification sponsored by AABC Commissioning Group (ACG), the Certified Commissioning Authority (CxA) Requirements to take the exam include technical experience (professional engineer, registered architect, or certified test and balance engineer, or a minimum of 8 years); commissioning experience (3 projects serving as a commissioning provider, with specific roles and responsibilities and client contact information); and independent role in the process. The applicants then take the CxA Exam.

3. Commissioning Certification Sponsored by BCA
Bryan Welsh, P.E., Welsh Commissioning Group, Auburn, WA

The Certified Commissioning Professional (CCP) certification is the premier certification for commissioning providers. CCPs don't just understand the process, they've performed the process. To qualify for the CCP exam, the applicant must meet requirements that include a minimum number of years as a Cx professional and provide three projects with client references that total at least 150,000 square feet and $30 million in construction value. Certification is good for a period of three years and is nm2010able. The test is offered online in more than 200 locations.

4. Commissioning Certification Sponsored by NEBB
Stephen Wiggins , Newcomb & Boyd, Atlanta, GA

NEBB Certification is a detailed and demanding process. Individuals cannot apply for NEBB certification, only firms are eligible for NEBB certification which must designate a professional, a NEBB Certified Professional, within their firm to supervise all NEBB related work. NEBB Certified Professionals must have extensive experience, plus they must pass appropriate, college-level written examinations. In certain disciplines, NEBB Certified Professionals must demonstrate practical working knowledge and proficiency in the use of instruments.

5. ASHRAE's Commissioning Certification
Gerald J. Kettler, P.E., Life Member, AIR Engineering and Testing, Dallas, TX

The ASHRAE commissioning certification is called the Commissioning Process Management Professional or CPMP. The purpose of the ASHRAE certification program

is to assist building owners, developers, standards writing agencies, and others in assessing the capability of individuals to manage the whole building commissioning process with the owner. The certification is obtained by completing an application, having the proper experience, and completing a 115 question examination to demonstrate a comprehensive knowledge of the commissioning process and its deliverables.