



Professional Testing

Meeting Summary

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| Client | U.S. Department of Energy (DoE) National Institute of Building Sciences (NIBS) |
| Date | August 25 - 26, 2014 |
| Location | Professional Testing Denver Office |
| Objective | Determine Scheme Committee Requirements for the Building Commissioning Professional |
| Participants | Rick Bennett Jim Bochat Michael Chelednik Rick Farrington Maureen Guttman Joe Helm Mike Locke Hendrick Munoz John Villani Steve Wiggins |
| NIBS Project Manager | Deke Smith, Executive Director, building SMART alliance and Program Director, Commercial Workforce Credentialing Council |
| Professional Testing Facilitator | Dr. Christine Niero, Facilitator Vice President, Professional Testing, Inc. |
| Observer | Maureen Roskoski, Senior Professional, Facility Engineering Associates on August 25 th . |
| Purpose | To determine scheme requirements for the Building Commissioning Professional in conformity with ISO/IEC 17024:2012 Accreditation Requirements |

Summary of Discussion

Dr. Niero of Professional Testing, Inc. began the meeting with welcoming address and introductions. Dr. Niero explained the purpose of the meeting and provided an overview of the certification program activities that had occurred thus far in the development of a certification examination for the Building Commissioning Professional.

Overview of ISO/IEC 17024 and Certification

Dr. Niero then gave a brief overview of scheme requirements of ISO/IEC 17024 *Conformity assessment—general requirements for bodies operating certification of persons* as administered by the American National Standards Institute (ANSI), noting that the certification programs sponsored by DoE and NIBS were to conform to these accreditation standards.

Report of the Building Commissioning Professional Validation Survey

Dr. Niero provided an overview of the Job Task Analysis process for the Building Commissioning Professional conducted February 19 – 21, 2014 and reported the demographic findings of the validation survey, including: highest level of education; years of energy experience; years of experience specifically as a building commissioning professional, sector in which respondents work, and state/geographic area in which respondents work. The demographic data was presented to provide a profile of job incumbents in building commissioning. Dr. Niero then provided an overview of the Examination Blueprint and the DACUM chart of duties and tasks; knowledge, skills, abilities and attributes; tools, equipment and resources to orient the task force participants about the job building commissioning professionals perform, and the foundation for the certification examination.

Work of the Scheme Committee

Task force participants were provided a copy of the JTA Report and the DACUM chart for review and reference. As a group of the whole, task force participants began to discuss the requirements for certification, including eligibility to qualify for the exam, at a high level, answering the question “What does the building commissioning professional” look like in terms of experience, education, and other work-related experiences. Once the group identified broad parameters for certification and eligibility, they broke into three work groups to accomplish the following:

1. Draft requirements for certification based on the competencies, identifying tasks that can be assessed on a written exam, and those that can’t be tested but candidates need to present with to earn the certification
2. Draft eligibility requirements for their respective work group category
3. Determine equivalencies where possible for degree and work-related experiences, including military experience
4. Provide definitions and parameters for each requirement so the applicant can easily understand the requirement
5. Determine how information can be documented on an application
6. List supporting documentation provided with submission of the application.

Participants were instructed to:

1. Ask “why” have the requirement(s)

2. Ask “what” assurances the requirement(s) provides for establishing eligibility, and to consider aspects of “fairness” to applicants
3. Ask “what” assurances the requirement(s) provides to matters such as safety, ethics, etc.
4. Ask “what” documentation would be required to demonstrate an applicant meets the requirement(s)
5. Ask what level of “trust” and degree of “confidence” the requirement provides that supports the ability of the building commissioning professional to perform their job
6. Ask “what” the eligibility requirement or certification requirement assures that the exam cannot test.

Once participants completed the group activities, the groups reported their recommendations for eligibility and the rationale to support specific requirements. Once all presentations were made, the full group discussed each requirement and arrived at the final set of eligibility requirements.

The following requirements for certification were agreed upon by the group:

Eligibility Requirements for the Building Commissioning Professional Examination

The Scheme Committee reviewed the DACUM charts task by task, and identified the tasks and associated KSAs that could be tested, and those that could be verified through experience or other requirements. The following eligibility requirements to take the Building Commissioning Certification examination were agreed upon.

Participate in a minimum of three commissioning projects. The projects may not include one and -two family residential buildings. Over the projects, the applicant must have participated in the following activities:

- development of an OPR/CFR
- develop commissioning plan
- review of a design
- perform field verification
- oversee performance testing
- correction of deficiencies
- training
- prepare commissioning report.

And One of the following options

1. Licensed Architect or Professional Engineer with three years’ commissioning experience.
2. Bachelor’s degree in building sciences* or equivalent military training/experience, with five years’ experience in building commissioning.
3. Associate/Technical/Vocational 2 year degree, non-building sciences bachelor’s degree, or equivalent military training/experience, with eight years’ building industry experience**, with five of years in building commissioning.

4. High school diploma or GED with 10 years' experience in building industry experience**, with five years in building commissioning.

*Building science education is defined as mechanical engineering, electrical engineering, construction science, construction management, architecture and other majors/fields of study designed to train people for careers in the building industry.

**Building industry experience is defined as design, construction, testing and commissioning, code enforcement and operations.

Recertification Requirements for Building Commissioning Professional

Dr. Niero provided an overview of the purposes of recertification, and a summary of the competency requirements for certified building commissioning professionals. The Scheme Committee discussed the recertification period and reviewed the considerations as outlined in ISO/IEC 17024 9.6.3. to determine a three year recertification cycle. Factors such as the level of professionalism required of certified persons, the risks associated with incompetent performance, and the maturity of the field support the three year certification cycle.

The Scheme Committee reviewed the options for recertification as listed in ISO/IEC 9.6.5. In selecting the recertification options, the following factors were considered:

- The cost and practicality of setting up onsite assessments and structured interviews, which would require scoring rubrics, examiners, and studies of inter-rater reliability for the examiners
- The vast location and variety of work environments
- The confidential nature of terms of employment preventing the review of work and work experience records
- The logistics associated with surveillance activities (surveillance is not required by the scheme)
- Changes to regulatory requirements and ongoing technology would be captured in the revalidation of the scheme
- Changes to normative documents and relevant scheme requirements would be captured in revisions to the scheme and during the associated revision of recertification requirements.

Fifty (50) points are required within the three year certification cycle, with 1 point = 1 hour of activity. The following requirements for recertification were determined. Alignment with competency requirements (examination blueprint) was determined.

*Note: Certification bodies per the requirements of ISO/IEC 17024 are required to confirm certified persons maintain any required physical capabilities in relation to the competency requirements.

Must participate in leading, planning, coordinating or managing a commissioning team to implement commissioning processes for a minimum of one project. No points awarded.

Must complete the following Continuing Education (CE) requirements: CE is a process used by certified persons to maintain and advance their competency. Only CEs that include proof of attendance from a third party qualify. A minimum of 25 CEs must be from education/training received. CE includes education/training received and may be obtained from several sources, including:

Webinars—1 point per hour of attendance

Conference Session—1 point per hour of attendance

Workshops—1 point per hour of attendance

College Credit (traditional or online)—10 points per college credit

Training online or in person—1 point per hour of attendance

PLUS a combination of the following options to total 50 points:

1. Continuing Education: Continuing Education. Only CEs that include proof of attendance from a third party qualify. Up to 25 CEs may be obtained from this option. CE includes education/training received and education/training given, and may be obtained from several sources, including:

Webinars—1 point per hour of attendance; 2 points per hour as presenter for the first presentation, then 1 point per hour for subsequent equivalent presentation

Conference Presentation—1 point per hour of attendance; 2 points per hour as presenter for the first presentation, then 1 point per hour for subsequent equivalent presentations

Workshops—1 point per hour of attendance; 2 points per hour as presenter for the first presentation, then 1 point per hour for subsequent equivalent presentations

College Credit (traditional or online)—10 points per college credit

Training online or in person—1 point per hour of attendance; 2 points per hour as a presenter for the first presentation, then 1 point per hour for subsequent equivalent presentations

2. Certification Test Development: Includes contributing to the development of the Building Commissioning Professional certification examination by participating in the following test development activities: job-task analysis study; item writing workshops; item review and/or passing score studies; 2 points awarded for 1 hour of participation—up to 25 points.
3. Regulatory Work: Participation in development or maintenance of regulatory standards. Participation includes providing testimony, official review, and/or appointment as a committee

member. Includes regulatory compliance analysis and support lent to legislation/regulation for support of building commissioning professionals (not lobbying); 1 point awarded for 1 hour of participation—up to 10 points.

4. Retest: Meet the current qualifications for and pass the certification exam: 25 points
5. Publications: Must be related to the industry, which is defined as design, construction, testing and commissioning, code enforcement and operations; published article in a peer-reviewed industry journal—5 points per article, up to 10 points.

Code of Ethics

Dr. Niero provided an overview of the purposes of the Code of Ethics and the disciplinary program for certified individuals. The following Code of Ethics was reviewed. The following types of sanctions were approved and shall include, but not be limited to:

- Cease and Desist
- Written reprimand
- Written reprimand with remediation
- Censure
- Suspension
- Revocation
- Permanent revocation

In addition to imposing sanctions, certification bodies shall have the authority to report sanctions to legal and regulatory authorities, and other credentialing organizations as appropriate.

Alignment of scheme requirements with assessment methodology

Dr. Niero provided an overview of the reviewing the scheme requirements with the assessment methodology to identify any competency requirements not being assessed, and for determining alternative methods of assessment, if appropriate and necessary. It was determined that all scheme requirements are assessed at eligibility or are on the exam blueprint.

Next steps

1. Agree that educational institutions are accredited by an accreditation agency recognized by the U.S. Department of Education or Council on Higher Education Accreditation (CHEA), and transcripts from applicants of schools outside of the U.S. be reviewed for equivalency by a third-party agency.
2. Create a sample check-list of experience requirements for commissioning projects to assist CBs in developing the application for certification. Check-lists to include verification that experience was obtained.
3. Determine if a gap analysis between existing certifications in building commissioning and the requirements of the NIBS scheme in building commissioning can be conducted to determine

common competency requirements and gaps in exam content between the entities, with the possibility of creating a bridge for currently certified individuals to enter the NIBS scheme if it is in compliance with the requirements of ISO/IEC 17024:2012.

4. Vote to adopt the scheme.
5. Present scheme to the CWCC Board of Advisors and the Board of Direction.