



## Professional Testing

### Meeting Summary

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| <b>Client</b>                           | CTTSO Certified Blast Protection Professional (CBPP)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Date</b>                             | September 20 - 21, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Location</b>                         | Hosted by: National Institute of Building Sciences<br>1090 Vermont Street, NW<br>Suite 700<br>Washington, DC 20005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Objective</b>                        | Determine Scheme Committee Requirements for CBPP Certification Program                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Participants</b>                     | <p>*Craig Ackerman, Department of State, Bureau of Diplomatic Security (Absent)</p> <p>*John Geringer, US Army Corps of Engineers Protective Design Center</p> <p>Aldo McKay, Protection Engineering Consultants</p> <p>Clay Naito, Lehigh University</p> <p>Jon Schmidt, Burns &amp; McDonnell</p> <p>Chris Shoemaker, Department of State Bureau of Overseas Building Operations</p> <p>Ronald Shope, ABS Consulting</p> <p>Jon Shull, Black &amp; Veatch Special Projects Corp.</p> <p>*Hollice Stone, Stone Security Engineering, P.C.</p> <p>*Member of the JTA Panel</p>                                                                     |
| <b>Professional Testing Facilitator</b> | Dr. Christine Niero, Facilitator<br>Vice President, Professional Testing, Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Observers</b>                        | <p>Douglas Cash, Science &amp; Technology Directorate, Explosives Division</p> <p>Michael Clark, Chief Operating Executive, National Institute for Certification in Engineering Technologies (Day 1)</p> <p>Roger Grant, Program Director, National Institute of Building Sciences</p> <p>Amber Kasbeer, Staff Engineer, Transportation Security Administration</p> <p>William Kelly, Civil Engineering Certification</p> <p>Brian Sien, Senior Manager, CEC ASCE Certification (Day 2)</p> <p>Mark Weaver, Senior Engineer, Karagozian &amp; case, Inc.</p> <p>Alec Williamson, Program Analyst, Combating Terrorism Technical Support Office</p> |
| <b>Purpose</b>                          | To determine scheme requirements for the CBPP certification in conformity with ISO/IEC 17024:2012 Accreditation Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Summary of Discussion & Scheme Requirements

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 Certified Blast Protection Professional (CBPP).

### Overview of ISO/IEC 17024 and Certification

Dr. Niero then gave a brief overview of scheme requirements of ISO/IEC 17024:2012 *Conformity assessment—general requirements for bodies operating certification of persons* as administered by the American National Standards Institute (ANSI), noting that the certification program is to conform to these accreditation standards.

### Report of the CBPP Job Task Analysis Studies

Dr. Niero provided an overview of the Job Task Analysis process for the CBPP conducted in April 2017 and reported the demographic findings of the validation survey. The demographic data was presented to provide a profile of job incumbents in blast protection. Dr. Niero then provided an overview of the Examination Blueprint (competence requirements) 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 duties and tasks the blast professional performs on the job, 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 blast 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 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 in order 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
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 “what” purpose the requirement serves
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 competence, 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 CBPP professionals to perform their jobs
6. Ask “what” the eligibility requirement or certification requirement assures that the exam cannot test.

**The following scheme requirements were agreed upon by the group:**

**Eligibility Scheme Requirements:**

**Eligibility Requirements to Quality for the Certified Blast Protection Professional**

Scope of the CBPP Certification: A CBPP characterizes hazardous explosion effects and designs solutions to mitigate the resulting consequences to specified assets.

Blast experience is research or work performed in the areas of establishing project requirements, including blast related basis of design and blast testing support, determining loading, and performing analysis and design for blast effects. Documentation must include the following:

Description of work performed (types of projects)\*  
Date range of project work performed  
Role on the project  
Verification of work performed (peer, supervisor attestation)

1. P.E. or Structural Engineer (S.E.) with 4 years of blast experience performed within 5 years prior to submission of the application for certification. P.E. or S.E. license must be current and in good standing.

OR

2. Eight years of blast experience performed within 10 years prior to submission of the application for certification.

**Mandatory Requirement:**

At the time of application, the applicant must agree to uphold and abide by the CBPP Code of Ethics.

The committee recommended certification be awarded for a period of four years.

\*Recommendations for certification bodies administering the CBPP regarding documentation of the applicant's work experience to meet the eligibility requirements:

1. Model the application documentation requirements on the P.E. application work experience requirements so applicants can readily document the experience requirements, and so each application can be reviewed by a certification administrator in a consistent manner.
2. The application must include a section whereby the applicant can clearly link their work experience (project and project types) to the competence requirements (duties and tasks on the examination blueprint) of the CBPP certification.

### **Recertification Scheme Requirements:**

Dr. Niero provided an overview of the purposes of recertification. The Scheme Committee discussed the recertification period and reviewed the considerations as outlined in ISO/IEC 17024 requirement 9.6.5. and the period of four years (recertification cycle) that the CBPP is awarded for.

The Scheme Committee reviewed the options for recertification as listed in ISO/IEC 17024 requirement 9.6.5. and selected professional development (continuing education), continued work experience, and taking the CBPP certification examination as the most appropriate recertification activities. In making this determination, 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, and the international location of certified persons
- The international scope of the certifications does not lend itself to review of work and work experience records, surveillance activities (which are not required by the scheme); additionally some work is kept confidential, and components of the job may be performed by contractors whose work may be considered proprietary;
- Checks on physical capability (vision, hearing, etc.) in relationship to the competence concerned would be considered by employers;
- Changes to regulatory requirements would be captured in the revalidation of the scheme.

As work groups developed the recertification requirements, they were asked to answer the following questions for each recertification activity:

1. How does the recertification activity link directly to the competence requirements?
2. What documentation will support evidence of meeting the requirements?
3. Why have mandatory requirements (if they are suggested)?
4. What activities are fair, reasonable and accessible for certified persons to achieve?
5. Do any requirements put up barriers that would prohibit a person from recertifying?

### **Recertification Requirements & Activities for the Certified Blast Protection Professional**

The purpose of the recertification is for the CBPP to demonstrate continued competence with the certification competencies.

#### Recertification Options:

1. Pathway 1: Complete 4 years blast experience work post-certification award and 16 PDH of continuing education.
2. Pathway 2: Substitute 4 PDH for each year without blast experience work up to a maximum total of 32 PDH.
3. Pathway 3: Take certification exam and complete a recertification application for the examination.

#### Mandatory Recertification Requirement:

Agree to uphold and abide by the CBPP Code of Ethics.

#### Appendix A Outlines the Options and Requirements for Professional Development

#### Code of Ethics for the Certified Blast Protection Professional

Dr. Niero provided an overview of the purposes of the Code of Ethics and the disciplinary program for certified individuals. The committee reviewed a draft Codes of Ethics typical of professional certifications, with attention given to establishing tenets of the Code that are measurable and actionable, not aspirational. The following types of sanctions for violations of the Code were approved. Sanctions shall be based on the severity of the violation, and shall include, but not be limited to:

Revocation of credential  
Non-renewal of credential  
Suspension of credential  
Reprimand; or  
Other corrective action.

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.

Appendix B contains the CBPP Code of Ethics

#### Alignment of Scheme Requirements with Assessment Methodology

The committee determined that several assessment methodologies would align with the competence requirements, and certification bodies should consider development of a certification examination that is a combination of multiple-choice, essay and/or oral methodologies to best assesses specific competence requirements. The CBPP competence requirements must be assessed in their entirety.

## Appendix A: Options and Requirements for Recertification

### Pathways 1 and 2: Professional Development

The purpose of the continuing professional competency requirement is to demonstrate a continuing level of competency of Certified Blast Protection Professionals (CBPPs) through completion of professional development hours (PDH).

In establishing options for PDH, the Committee referenced and adapted the NCEES Model Rules for engineering licensure as an established industry standard.

#### 1. Definitions & Terminology

Terms used in this section are defined as follows:

1. Professional Development Hour (PDH)—One contact hour (nominal) of instruction or presentation. The PDH is the common denominator for other units of credit.
2. Continuing Education Unit (CEU)—Unit of credit customarily used for continuing education courses. One continuing education unit equals 10 hours of class in an approved continuing education course.
3. College/Unit Semester/Quarter Hour—Credit for college courses approved in accordance with Section E.
4. Course/Activity—Any qualifying course or activity with a clear purpose and objective that will maintain, improve, or expand the skills and knowledge relevant to blast protection as defined by the CBPP competence requirements. Regular duties documented as work experience are not considered qualified activities.

#### 2. Requirements

Every CBPP is required to obtain the equivalent of 16 PDHs per four-year recertification cycle (renewal period). These PDHs may be obtained anytime during the applicable renewal period. Four additional PDHs may be substituted for any year when the CBPP does not document blast experience work. PDHs may be earned as follows:

1. Successful completion of college courses.
2. Successful completion of short courses, tutorials, webinars, and distance-education courses offered for self-study, independent study, or group study and through synchronous or asynchronous delivery methods such as live, correspondence, archival, or the Internet.
3. Presenting or attending qualifying seminars, in-house courses, workshops, or professional or technical presentations made at meetings, conventions, conferences, or educational institutions.
4. Teaching or instructing in 1 through 3 above.
5. Authoring published papers, articles or books.
6. Active participation in professional or technical societies.
7. Patents.

### 3. Units

The conversion of other units of credit to PDHs is as follows:

1. 1 semester hour = 9 PDHs, 1 quarter hour = 6 PDHs
2. 1 continuing education unit = 10 PDHs.
3. 1 hour of professional development in coursework, seminars, or professional or technical presentations made at meetings, conventions, or conferences = 1 PDH.
4. For teaching in 1 through 3 above, apply multiple of 2, valid only for the first offering or presentation. Full-time faculty may not claim teaching credit associated with their regular duties documented as work experience.
5. Publication as author or co-author of a peer-reviewed paper, chapter or book = 10 PDHs, publication of a non-peer-reviewed paper, chapter or article = 5 PDHs.
6. Active participation in professional/technical society = 2 PDHs per organization per year of service.
7. Each patent = 10 PDHs.

Recommendations to certification bodies (CBs) administering the recertification program.

1. The CB should make accreditation of continuing education courses a requirement, and establish quality assurance requirements for offerings that are not accredited.

#### 2. Determination of Credit

The Certifying Body has final authority with respect to approval of courses, credit, PDH value for courses, and other methods of earning credit.

1. Credit for college or community college approved courses will be based upon course credit established by the college.
2. Credit for qualifying seminars and workshops will be based on 1 PDH for each hour of attendance. Attendance at qualifying programs presented at professional and/or technical society meetings will earn PDHs for the actual time of each program.
3. Credit determination for activities is the responsibility of the CBPP, subject to review as required by the certifying body.
4. Credit for activity in subsection 3. Units, Activity 6, is limited to 2 PDHs per organization and requires that the CBPP actively participate on a committee. PDHs are not earned until the end of each year of service is completed.

#### 3. Recordkeeping

The CBPP is responsible for maintaining records to be used to support credits claimed. Records required include, but are not limited to (1) a log showing the type of activity claimed, sponsoring organization, location, duration, instructor's or speaker's name, and PDHs earned; and (2) attendance verification records in the form of completion certificates or other documents supporting evidence of attendance.

The Certifying Body reserves the right to require submission of such documentation for any credit claimed by the CBPP for recertification.

## Appendix B: CBPP Code of Ethics

### Preamble:

The Code of Ethics of the [name] Certification Body requires certified persons to uphold the rules and requirements for the Certified Blast Protection Professional (CBPP). The Code of Ethics allows for the proper discharge of the responsibilities of CBPP's, those they serve, and for the protection and integrity of the credential. Agreement to uphold and abide by the Code of Ethics is a requirement for earning and maintaining BPP certification. Implicit in this agreement is an obligation not only to comply with the mandates and requirements of all applicable laws and regulations, but to act in an ethical manner in all professional services and activities. Certified persons who fail to comply with the Code of Ethics are subject to disciplinary procedures which may result in sanctions. The Code of Ethics is not set forth to determine behaviors resulting in criminal or civil liability, nor are they intended to resolve matters of market competition.

As a Certified Blast Protection Professional, I agree to uphold and abide the following tenets of the CBPP Code of Ethics:

1. Perform professional duties in accordance with all applicable laws.
2. Perform professional duties in a competent and ethical manner consistent with industry standard of care.
3. Avoid acts or omissions amounting to professional negligence.
4. Avoid malicious conduct that would injure the professional reputation or practice of others.
5. Provide complete and accurate information when applying for certification and recertification.
6. Refrain from behavior that may compromise the integrity of the credential.
7. Disclose any felony convictions within the last ten years.
8. Disclose any suspensions or revocations of professional licenses within the last ten years.
9. Safeguard confidential and privileged information and exercise due care to prevent its improper disclosure.
10. Abide by and uphold the policies of the Certification Body.
11. Use the logo and certification marks only in an authorized and approved manner.
12. Pay all fees and provide information required by the Certification Body.
13. Agree to surrender the certificate and refrain from all references to certification should certification be revoked.