Credentialing in Safety

Bradley D. Giles, CSP, PE, STS
Past President Board of Directors
Vice-President Environmental, Safety, Health & Security - URS

Credentialing Leader
BCSP is recognized as the leader in high-quality credentialing for safety, health, and environmental practitioners.

BCSP establishes standards for and verifies competency in professional safety practice and evaluates certificants for compliance with recertification requirements.

About BCSP
• Established in 1969
• Not-For-Profit
• 10 Directors
• Not a membership organization
• All certifications are protected by ® Registered Trade Mark
• 8 affiliated Sponsorship Organizations
  – AIHA
  – ASSE
  – IIE
  – ISSS
  – NESHTA
  – NFPA
  – NSC
  – SFPE

George Gorbell announces the certification program in 1969: “...The evidence of competency in safety furnished by certification will improve the individual, raise the general level of competency in the profession, promote high standards of professional conduct, and assure management that it will receive top-quality job performance...”
What is Certification

- **Voluntary process**
  - Set standards
  - Educational
  - Experience
  - Examination
  - Evaluates individuals against standards
  - Awards certification and use of mark
  - Requires continuing professional development

- **It is NOT**
  - License to practice
  - Permanent
  - Membership
  - Certificate of completion

Value of Certification

- **General**
  - Raises bar
  - Levels playing field
  - Provides benchmark
  - Demonstrates competency

- **Employers**
  - Prescreens candidates
  - Public image
  - Indicator of professionalism

- **Safety Professionals**
  - Personal fulfillment
  - Peer recognition
  - Pay and position
    - CSP makes >30% more than non-certified (2012 survey)
  - Competitive advantage
  - Demonstrates credibility

- **Government Agencies**
  - Contract qualifications
  - Task performance qualifications
  - Higher public assurance of competency

Certification vs. Certificate

<table>
<thead>
<tr>
<th>Certification</th>
<th>Certificate</th>
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</thead>
<tbody>
<tr>
<td>Results from an assessment process</td>
<td>Results from an educational process</td>
</tr>
<tr>
<td>Typically requires some amount of professional experience</td>
<td>Typically results from an educational program or initiative</td>
</tr>
<tr>
<td>Awarded by a third-party, standard-setting organization</td>
<td>Indicated on completion of a course or series of courses with a specific focus, different than a degree granting program</td>
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<tr>
<td>Indicates mastery/competency as measured against a defensible set of standards, usually by application or exam</td>
<td>Course content set in a variety of ways (faculty committee, dean, instructor, occasionally through defensible analysis of topic care)</td>
</tr>
<tr>
<td>Standards set through a defensible, industry-wide process (job analysis/role delineation) that results in an outline of required knowledge and skills</td>
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<td>Typically results in a designation that goes after one’s name, may result in a document to hand on the wall or keep in a wallet</td>
<td>Usually listed on a resume detailing education. May result in a document to hang on the wall</td>
</tr>
<tr>
<td>Has on-going requirements to maintain; individual must demonstrate knowledge of content, holder must demonstrate he/she continues to meet requirements</td>
<td>Is the end result; individual may or may not demonstrate knowledge of course content at the end of a set period in time</td>
</tr>
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</table>
National and International Accreditations

- International Accreditation
  - American National Standards Institute (ANSI/ISO) 17024
- CSP Only
- National Accreditation
  - Institute for Credentialing Excellence
    - National Commission for Certifying Agencies (NCCA)
      - CSP, OHST/CLCS, CHST, STS
  - National Commission for Certifying Agencies (NCCA)
    - CSP, OHST/CLCS, CHST, STS
- Council of Engineering & Scientific Specialty Boards (CESB)
  - CET/CIT (currently)

Accreditation Assures

- Governance
  - Nominations/elections
  - Peer participation
  - Public participation
- Financial disclosure
  - Stability and financial condition
  - Budget details
- Fairness to candidates
- Examinations
  - Validity
  - Reliability
  - Passing scores
- Recertification
- Independence from preparation
- Management systems

Your Personal Journey to Certification
BCSP Certifications and Designations

- Professional:
  - Associate Safety Professional (ASP) – (designation; soon to be certification)
  - Graduate Safety Practitioner (GSP) – (designation)
  - Certified Safety Professional (CSP)

- Technician, Technologist, Supervisor:
  - Occupational Health and Safety Technologist (OHST)
  - Construction Health and Safety Technician (CHST)
  - Safety Trainer Supervisor (STS) – General Ind., Construction, Petrochemical, Mining

- Trainer:
  - Certified Environmental, Safety and Health Trainer (CET)

Current Certificants

- ASP 1,039
- GSP 1,270
- CSP 13,643
- CHST 2,778
- OHST 1,854
- STS 7,006
- CET 465

As of 4/23/13

Certification Confidence

300+ Safety Certifications

CSP – Certified Safety Professional
CIH – Certified Industrial Hygienist
CHFP – Certified Health Physicist
CHMM – Certified Hazardous Materials Manager
CFPP – Certified Fire Protection Professional
CMS – Certified Mine Safety
OHST – Occupational Health Safety Technologist
CHST – Construction Health & Safety Technologist
STS – Safety Trained Supervisor
COHN – Certified Occupational Health Nurse
CSS – Certified System Safety
CET – Certified Environmental, Safety and Health Trainer
Psychometric Development of Examinations
Basic Process – Peer Developed

Step 1: Role Delineation/Job Analysis

- 2-3 day meeting of 8-15 subject matter experts (SMEs) with respective certification
  - Geographically, industry, and demographically dispersed
  - Review/revise blueprint
    - Domains; Tasks; Knowledge; Skills
  - Determine for each task
    - Importance
      - Knowledge of task is essential to job performance of minimally competent professional
    - Criticality
      - Adverse effects could result if professional is not knowledgeable in the task
    - Frequency
      - Time the professional spends performing duties within the task

Step 2: Validation Survey
This survey determines how many questions belong in each domain

- Send new blueprint to 1,000+ (if available) credential holders to re-establish for each task
  - Importance
  - Criticality
  - Frequency

- Role delineation and validation survey report is submitted by the Psychometrician and reviewed/approved by the Board of Directors Examination Committee followed by the Board
Step 3: Exam Assembly

- Exam department revises exam items based on:
  - New blueprint specifications
  - Annual statistical analysis of each item
- New Exam is reviewed/revised by the Psychometrician
  - Typically "experimental" items
    - Not scored
    - Statistically determine future usability as scored item
    - For example, 200 question exam has 25 non-scored items
    - New items pulled from "experimental" items
    - Also from item bank

Step 3 Side Note:
New Items Development

- SMEs and chartered groups of SMEs write and submit items
  - Reviewed by Chief Operating Officer
  - Sent for second review to different SMEs
    - Verified for validity by SMEs

Step 4: Cut Score

- 2-3 day meeting of 8-15 SMEs w/certification
  - Geographically, industry, and demographically dispersed
  - SMEs take the exam, Psychometrician uses modified Angoff method to determine cut score range
    - Statistical review of the group's ratings regarding difficulty of individual items
    - Generally accepted best practice and well supported by case law
- Cut score process and recommended range is reported by Psychometrician
  - Results reviewed/approved by Exam Committee & Board
- Exact cut score based on recommendation of Psychometrician
  - Board approves cut score decision
  - Conservative score is chosen and stats are run on first 100-200 exams to ensure adequacy of cut score
Step 5: Annual Statistics

- Run on all exams annually
- Stats are analyzed to determine eligibility for future or continued use of items
  - Stats are on reliability of entire exam and each item
  - Level of difficulty
  - Discrimination
  - Uniqueness
  - Implausibility of distracters
  - Velocity of distracters
- Scored items vs. non-scored
  - NOTE: There are “experimental” items in each exam that are not scored, but stats are run on them to determine usability in future exams
  - 200 question exams have 25 non-scored items

Step 6: Revalidation

- Why
  - Keep examinations current
  - Protect program
  - Protect validity of examinations
  - Maintain accreditation
- Terms of Retaining Accreditation
  - Revalidate examinations every 5-8 years
  - Demonstrate reliability and validity of exam product
  - Maintain security to ensure intellectual property and confidentiality

The Certification Process

- Apply
- Qualify
  - Education
  - Experience
- Pass Examination(s)
  - Pearson VUE Sites
    - 5000 test centers
    - 175 countries
- Recertification Criteria
Application Fee Waivers

- Faculty
- ABET Graduates
- Government Employees
- Military and Veteran
  - Exam fees may be reimbursed through:
    - Montgomery GI Bill
    - Veterans Education Assistance Program
    - Post 9/11 GI Bill

STS

Does this pay?

- CHST
- OHST
- ASP/CSP/GSP
- CET

Financial Impact of Safety Certification

CHST: Median Annual Salary
$24,000 more than average
Occupational Safety and Health Technician - $79,000

CSP: Median Annual Salary
$25,000 more than average
Occupational Safety and Health Specialist - $98,000
Safety Trained Supervisor® (STS®) Certification

Qualifications

• Education:
  – 30 hours of formal safety-related training

• Experience:
  – Two years industry experience plus one year as supervisor OR
  – Four years industry experience if not a supervisor

• Competence:
  – Demonstrated through examination

Examinations

• 4 STS Examinations Available:
  – Construction, General Industry, Petrochemical, Mining

• Computer delivered
  – Available daily at testing centers

• 2 hour exam with 100 multiple choice questions

• Recertification every 5 years
  – 30 hours of safety and health courses or retake STS exam

• Costs:
  – Application fee $110*
  – Exam fee $185**
  – Annual Renewal $ 60*  
  *non-refundable; subject to change without notice

*BCSP Board of Certified Safety Professionals
Targeted Toward

**Supervisors**
- Crew Chiefs
- Foremen
- Future Supervisory Candidates

**Group Leaders**
- Safety Committee Members
- Departmental Safety Liaisons/Champions

**Leadership**
- Senior Executives
- Managers at all levels within the organization

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Safety Trained Supervisor® (STS®) Examination Contents

- **10 Tasks:**
  - New Employee Orientation 9.1%
  - Basic S&H Hazard Recognition 10.7%
  - S&H Meetings 9.3%
  - Inspect Tools & Equipment 9.7%
  - Job S&H Inspections 9.7%
  - Pretask S&H Hazard Analysis 10.6%
  - Issue & Monitor PPE 9.6%
  - Plan for S&H Hazard Prevention 10.7%
  - Apply S&H Standards on Jobsite 11.1%
  - Investigate Accidents/Incidents 9.9%

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Does This Process Really Work?

**RESULTS**