

# Candidate Handbook

OCCUPATIONAL HEALTH AND SAFETY TECHNOLOGIST®  
AND CERTIFIED LOSS CONTROL SPECIALIST®



EIGHTH EDITION | JANUARY 2012

**BCSP** | Board of Certified  
Safety Professionals

Advancing the Safety, Health and Environmental  
Profession Since 1969

2301 W. Bradley Avenue  
Champaign, IL 61821 USA

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Champaign, Illinois, USA

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**Occupational Health and Safety Technologist/  
Certified Loss Control Specialist Candidate Handbook  
Eighth Edition  
January 2012**

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## Forms

- OHST/CLCS Application Form
- OHST/CLCS Experience Form
- OHST/CLCS Professional Reference Form



# Introduction

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## Definitions

*Occupational Health and Safety Technologist*<sup>®1</sup> or *OHST* is a title awarded to safety practitioners who meet and continue to meet all requirements established for the OHST by the Board of Certified Safety Professionals (BCSP). *Certified Loss Control Specialist* or *CLCS* is a title awarded to safety practitioners who meet and continue to meet all requirements established for the CLCS by BCSP. Beginning in 2007, BCSP offers the CLCS as a choice (explained below) through the same process used to achieve the OHST.

*Occupational Health and Safety Technologists* or *Certified Loss Control Specialists* are persons who perform occupational health and safety activities on a full-time or part-time basis as part of their job duties. Such duties may be ancillary to other job functions. Some examples of occupational health and safety activities (also performed by loss control specialists) are making worksite assessments to determine risks, potential hazards and controls, evaluating risks and hazard control measures, investigating incidents, maintaining and evaluating incident and loss records, and preparing emergency response plans.

## The OHST/CLCS Program

BCSP awards the Occupational Health and Safety Technologist (OHST) certification and Certified Loss Control Specialist (CLCS) to individuals who demonstrate competence and work part-time or full-time in health and safety activities devoted to the prevention of occupational illnesses and injuries.

Currently, over 1,500 people hold the OHST certification. Some government regulations, standards, and contracts identify the OHST as a qualification for performing safety tasks. For example, worker's compensation laws or regulations in some states cite the OHST as a qualification for loss control representatives.

The OHST and CLCS certification meets national standards for certifications. In 2004, The National Commission for Certifying Agencies (NCCA)<sup>2</sup> accredited the OHST/CLCS.

## The OHST/CLCS Certificant

Benefits of the OHST/CLCS certification for occupational health and safety practitioners include:

- Satisfaction from knowing that you meet a standard of your professional peers;
- Self-esteem because you have respect of other health and safety professionals for your professionalism;
- Recognition from an employer or potential employers for health and safety qualifications;
- Potential recognition from an employer through increased job responsibility and/or pay;
- Improved ability to compete for occupational health and safety positions;
- An attractive wall certificate; and
- An annual wallet card noting the certification.

## Benefit for Employers

The OHST/CLCS certification benefits employers because it:

- Is helpful when selecting qualified occupational health and safety practitioners;
- Increases worker and public confidence in the employer's occupational safety and health program;
- Enhances company profitability and quality by reducing occupational accidents, illnesses, and insurance claims;
- Improves the company image for worker protection;
- Is a means for improving safety and health in the workplace through competence; and
- Meets national standards for certification of persons.

## Background

The OHST certification began in 1985. The CLCS title option began on January 1, 2007. In creating the original joint venture, the American Board of Industrial Hygiene (ABIH) and the Board of Certified Safety Professionals (BCSP) recognized the expanding role of technologists in achieving health and safety in the workplace. The OHST/CLCS program establishes standards for individuals who otherwise may not qualify for full-time, professional certifications, such as the Certified Industrial Hygienist (CIH) or Certified Safety Professional<sup>®</sup> (CSP<sup>®</sup>)<sup>3</sup>.

Some employers assign responsibility for occupational safety and health functions to people who have other primary job functions, but have very important roles in protecting workers. Whether full-time or part-time, the health and safety functions require high standards of competency and the OHST/CLCS certification helps validate that competency. Many use the OHST/CLCS as a stepping stone to greater roles in safety and health and to the CSP or CIH certifications.

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<sup>1</sup>Occupational Health and Safety Technologist<sup>®</sup> and the OHST logo are registered certification marks with the U.S. Patent and Trademark Office.

<sup>2</sup>National Commission for Certifying Agencies, 2025 M Street, NW, Suite 800, Washington, DC 20036, Phone: 202-367-1165, Web: [www.credentialingexcellence.org](http://www.credentialingexcellence.org).

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<sup>3</sup>Certified Safety Professional<sup>®</sup>, CSP<sup>®</sup>, and the CSP logo are registered certification marks with the U.S. Patent and Trademark Office.

There are several ways to meet the qualification requirements to sit for the OHST/CLCS examinations. The program accepts those who develop expertise through job experience alone. It also accepts candidates who gain knowledge of safety and health through academic preparation coupled with job experience.

### **Process Overview**

You can apply at any time to start the certification process. All OHST/CLCS application, experience, and reference forms are available at [www.bcsp.org](http://www.bcsp.org) and at the end of this publication. Reviewers check your qualifications to determine if you meet the experience requirement (or academic substitutions) and are eligible to sit for the examination. After meeting *all requirements* and passing either the OHST/CLCS examination (both cover the same knowledge), you receive the OHST/CLCS certification depending on which certification path you choose. To retain the certification, you must pay an annual fee and meet recertification requirements through the Recertification program.

### **OHST and CLCS Paths**

The requirements for achieving and retaining the OHST or CLCS are identical. Applicants choose the OHST or CLCS path. In the OHST path, candidates sit for the OHST examination and achieve the OHST title after meeting all requirements. In the CLCS path, candidates sit for the CLCS examination and achieve the CLCS title after meeting all requirements. Those who pass the examination in their respective path but do not meet all requirements receive an Associate designation (AOHST) or (ACLCS) to denote progress toward the title in their path.

Both the OHST and CLCS examinations cover the same knowledge of safety and health practice and have the same requirements to achieve and retain the certification.

### **Fees**

The most up-to-date and accurate application, examination and renewal fees can be found at [www.bcsp.org/ataglance](http://www.bcsp.org/ataglance).

Fees are nonrefundable and nontransferable. Checks and money orders must be payable to BCSP. All fees must be payable in U.S. dollars drawn on a U.S. bank. Fees are subject to change at any time without notice.

Non-sufficient fund checks will stop action on the certification process for any candidate or certificate holder covered by the check and any related NSF fees are billed to the check originator.

Qualified veterans and certain active military and reservists can seek reimbursement from the Department of Veterans' Affairs (VA) for BCSP examination fees. Contact your regional VA office for eligibility and reimbursement details.

### **Changing OHST and CLCS Titles**

Since both certifications cover the same knowledge and have the same process, BCSP will allow certificants to change their OHST or CLCS title. Refer to the BCSP web site for the OHST/CLCS Title Change Request Form, rules and procedures.

# General Qualifications

To qualify for the OHST/CLCS, an applicant must:

- Be of good moral character and have high ethical standards;
- Have five years of experience in acceptable occupational health or safety activities; and
- Pass the OHST/CLCS examination.

## Experience and Education

### Experience

To be acceptable, the five years of occupational health or safety experience for the OHST/CLCS must:

- Occur after receipt of a high school diploma or GED;
- Be full-time or part-time; and
- Be at least 35% of the primary job duties.

### Educational Credit

As an OHST/CLCS candidate, you may substitute college education for some or the entire experience requirement. BCSP accepts educational credit from U.S. schools meeting the following institutional standard:

For degrees and courses from U.S. colleges and universities to be accepted by BCSP, the school must hold institutional accreditation from an accrediting body with institutional accrediting authority recognized by the Council for Higher Education Accreditation (CHEA)<sup>4</sup> or the U.S. Department of Education<sup>5</sup> and the degree or courses must have been completed during the period in which the school holds the accreditation.

BCSP requires that all degrees from colleges and universities outside the United States be evaluated for U.S. equivalency by one of five specific NACES® members. BCSP recommends that you have your academic degree evaluated before applying for certification.

To complete the foreign degree evaluation process, please visit [www.bcspp.org/educationstandard](http://www.bcspp.org/educationstandard).

Check with your school or with CHEA ([www.chea.org](http://www.chea.org)) to determine whether a CHEA-recognized accrediting body accredits your school.

A degree may also hold program accreditation. For health and safety degrees, BCSP relies on program accreditation by commissions of the Accreditation Board for Engineering and Technology (ABET)<sup>6</sup>.

Health and safety degrees extend to related areas of study, such as fire protection, environmental, environmental health, and safety engineering.

*Associate Degrees or Higher.* You may use one degree to substitute for experience and only the highest degree is considered. Refer to the following table:

Degree	Major	Experience
Associate	Health and safety (ABET-accredited)	5 years
	Health and safety (not ABET-accredited)	4 years
	Technical or scientific discipline	2 years
	Other fields	1 year
Bachelor's	Health and safety (ABET-accredited)	5 years
	Health and safety (not ABET-accredited)	4 years
	Other fields	2 years
Master's	Health and safety (ABET-accredited)	5 years
	Health and safety (not ABET-accredited)	4 years
	Other fields	2 years

**Note:** Students in ABET-accredited health and safety associate or higher degree programs can achieve the OHST/CLCS upon graduation by passing the OHST or CLCS examination while in school.

*College Courses.* If you have completed 24 semester hours of college courses, you may substitute these courses for **one year** of experience if they include **two courses each** in at least two of the following areas:

- Chemistry
- Physics
- Technology
- Occupational health and safety
- Biological sciences

*Certificate Programs.* Certificate programs that include completion of a sequence of courses may qualify for a waiver of some experience toward the OHST/CLCS. Programs must apply to be accepted by BCSP. Contact BCSP to find out if your certificate program is accepted by BCSP.

<sup>4</sup>Council for Higher Education Accreditation, One Dupont Circle NW, Suite 510, Washington, DC 20036-1135, Phone: 202-955-6126, Web: [www.chea.org](http://www.chea.org).

<sup>5</sup>U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202, Phone: 800-USA-LEARN, Web: [www.ope.ed.gov/accreditation](http://www.ope.ed.gov/accreditation).

<sup>6</sup>Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012; Phone: 410-347-7700; Web: [www.abet.org](http://www.abet.org).

## **Academic Schools Listing**

BCSP's web site ([www.bcsp.org](http://www.bcsp.org)) provides a current listing of schools that have safety and health or related associate, bachelor's or master's degrees or BCSP-approved certificate programs. The listing identifies ABET accreditation and whether programs and degrees are available through distance learning.

## **Examinations**

You may sit for the OHST/CLCS examination anytime after BCSP notifies you that your application has been accepted.

If you have not met the five years of experience (or substituted education) and you pass either examination, BCSP will award you an interim designation: Associate Occupational Health and Safety Technologist or Associate Loss Control Specialist, depending on your examination. The interim designation denotes progress toward the OHST/CLCS. Once you meet all requirements, BCSP will award you the actual OHST/CLCS certification.

**Note:** After you pass the OHST or CLCS examination, you will not receive the OHST or CLCS certification until the requirement for five years of experience or substituted education is fully met.

## **Interim Designation and Time Limit**

If an applicant does not meet the full experience (or substituted education) requirement and passes the OHST or CLCS examination, BCSP issues the Associate Occupational Health and Safety Technologist (AOHST) or Associate Loss Control Specialist (ACLCS) designation.

There is a time limit for holding an associate designation. BCSP will estimate when you will complete your experience requirement based on employment at the time of application. BCSP will contact you about when you complete the estimated time to verify whether you have made progress to meeting the experience requirement. However, the maximum time during which someone can hold an associate designation is three years from the date of application.

# Application Instructions

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The application consists of:

- An OHST/CLCS Application Form;
- Experience forms as needed to cover each period of employment for which credit is sought (resumes are not accepted);
- Two references who can attest to your safety knowledge, experience and moral character.
- Application fee (payable in U.S. dollars); and
- College transcript(s), if applicable.

You may apply at any time. Application, experience, and reference forms are available on the BCSP web site. Your application will be held on file as long as you meet time limits rules (see Time Limit Rules, page 11).

## Application Form

When preparing your application form, please provide all information requested. BCSP can act only on the information provided. BCSP may return incomplete applications. Missing or incorrect fees, invalid checks or credit card transactions and missing information also may hold up application processing. *The application form must be typed or printed in black ink.* Make copies as needed for draft work. Additional application forms are found on the BCSP web site and can be filled out electronically and printed locally.

## Applicant Personal Data

- Use your legal, given name. Do not use nicknames.
- Provide your social security number. It will verify your identity.
- Provide your mailing address. BCSP will send all correspondence to this address. Your home address is strongly recommended, since many employers do not forward mail when someone changes employers or work locations.
- You must notify BCSP of any address or name changes after you apply. Name changes will require a copy of the legal document (marriage certificate, divorce decree, etc.)
- Select one North American Industry Classification System (NAICS) code from the table of NAICS codes (Table 1 on 10), which best fits your current position. NAICS has replaced the U.S. Standard Industrial Classification (SIC) system.
- Provide your home, work, and fax phone numbers and email address. For phone numbers outside the U.S., please include the country and city codes.
- Provide your current employer's name and the name of the organization that is sponsoring you (if applicable).

## Selecting the Examination and Certification Path

Mark which path to certification in the OHST/CLCS program you wish to follow. Checking OHST means that you must sit for the OHST examination and you will receive the OHST certification after meeting all requirements. If you are to receive an associate designation to show progress toward the final certification, you will receive the Associate Occupational Health and Safety Technologist designation (AOHST).

Checking CLCS means that you must sit for the CLCS examination and you will receive the CLCS certification after meeting all requirements. If you are to receive an associate designation to show progress toward the final certification, you will receive the Associate Loss Control Specialist designation (ACLCS).

Once you select the path and submit your application, you cannot change paths until you achieve the certification. After BCSP awards the final certification, you may choose to convert your certification, for a fee.

## College Education and Certificate Programs

If you are seeking credit for your degree(s) or courses toward the OHST/CLCS eligibility:

- You must provide an *original transcript in a university-sealed envelope with the confirmed conference date from the school or university* for each degree or school from which you seek credit. An original transcript will have the school's registrar's stamp or seal. The degree title and date must appear on the transcript for BCSP to accept it for credit. **DO NOT SEND PHOTOCOPIES.**
- Check the appropriate box on the application to indicate whether a transcript is enclosed or the school is sending it.

If you are seeking credit for a certificate program:

- Submit a copy of the certificate showing completion of the program. The certificate must show the name of the school or organization, the title of the certificate program and your name. The certificate must be from a BCSP-approved certificate program. BCSP will verify completion with the program provider.

### *Summary of Health and Safety Experience*

- List the positions in reverse chronological order (*resumes are not accepted*).
- List **each position** for which you are seeking credit, the name of the employer, and the period of employment.
- Enter the number of months employed in each position listed. Add the figures together under the “months in position” and record the total months next to “total months.”
- Enclose a separate OHST/CLCS Experience Form for **each position** for which you are seeking credit.
- You must account for at least the last five years of experience. Account for discontinuities in employment, such as being a full-time student. Explain overlapping positions.

### *Professional References*

List people who can attest to your experience in occupational health and safety. See the OHST/CLCS Experience Form for details. You must submit *two references*.

- References must be individuals who are familiar with your safety experience and can attest to your moral character. BCSP always reserves the right to request additional references.
- To avoid confusion and processing delays, make sure the references listed on the application form are those who complete reference forms.

### *Current Licenses, Registrations, and Certifications*

Check all boxes for professional health and safety licenses, registrations or certifications that you currently hold.

### *Professional Society Memberships*

Check all boxes for professional health and safety societies in which you currently hold membership(s).

### *Primary Safety Specialty*

Check only one box for the specialty which best describes your overall qualifications.

### *Criminal Conviction and Professional Registration Denied Policy*

BCSP requires applicants to disclose criminal convictions, disciplinary actions, and denial or revoked certifications, licenses and professional registrations. BCSP uses its policy relating to criminal convictions to determine whether the application can proceed or whether it will be terminated. In some cases, a BCSP attorney must contact the applicant to clarify information about the conviction. A copy of the BCSP criminal conviction policy appears at [www.bcsp.org/About\\_BCSP](http://www.bcsp.org/About_BCSP).

BCSP also requires applicants to disclose any disciplinary actions or denial of certifications, licenses or professional registrations taken against the applicant by the issuing certification board or agency. BCSP determines whether the action should be considered in the certification application process.

Applicants are required to provide disclosure of:

- All felony convictions
- All misdemeanor convictions within the past five (5) years (Minor traffic violations and petty offenses DO NOT have to be reported)
- Any record of unethical behavior
- Information related to having a professional license or certification denied, suspended or revoked for reasons other than not meeting qualifications, failure of examination, or failure to pay renewal fees

### *Validation and Signature*

Be sure to **sign and date your application** or it will be returned. Your signature means that you agree with the statements printed above the signature block. You and other OHST/CLCS candidates agree to abide by the *OHST/CLCS/CHST Code of Ethics*.

### *Application Payment Information*

- Please indicate how you are paying your application fee.
- Your application fee must accompany your application or it cannot be processed.
- Fees must be in U.S. dollars and foreign checks must be drawn on a U.S. bank.
- If you pay by credit card, please record your credit card number, expiration date and place your signature below the credit card information. Check your credit card number for accuracy.
- If you pay by check or money order, attach it to the front of the application.

### *Experience Forms*

You must submit a separate OHST/CLCS Experience Form for each position for which you seek credit (*resumes are not accepted*). You may have worked in several positions for the same employer, *each position requires a separate form*.

### *Position*

Enter the position title and indicate if it is full-time or part-time. BCSP defines full-time as 30 hours or more per week. Identify what portions of the position’s duties involve safety and health work. List the start and end dates for your employment in each position.

Describe four primary duties of the position. BCSP can evaluate only the information that you provide. Complete information will help evaluators determine if your experience is acceptable.

### *Employer Data*

List name, mailing address, and phone number for each position. Also, list the supervisor's name for each position.

### **Students Applying for the OHST or CLCS Certification**

Students should complete the application form, experience forms, and reference forms required of all applicants. However, the following are likely to apply.

### *Application Form*

- Under *College Education and Certificate Programs*, list the date you expect to graduate if your degree has not been awarded.
- List one of your professors as one of the references.

### *Experience Form*

An experience form is not required for a degree or certificate program, since a transcript or certificate of completion covers these activities. **Note:** Students must submit an official transcript.

If students are in an ABET-accredited safety program, they must submit a transcript upon completion of their degree.

### *Reference Form*

- Have a professor complete a reference form. The professor must include the expected graduation date.
- If you have other safety and health experience for which course credit is not given, provide a reference form for each period of experience.

### **Mailing your Application**

- Make a copy of all application materials and retain them for your files.
- Paper clip all application materials together with your check (if used) on top. Do not place your materials in a folder or bind them.
- Do not send resumes, professional papers, continuing education course certificates, or other items which are not specifically requested in these instructions.
- Mail your application to:

**BCSP**  
**2301 W. Bradley Avenue**  
**Champaign, IL 61821**

**Table I. NAICS Codes**

<b>North American Industrial Classification System Codes</b>	
<b>NAICS Code</b>	<b>Description [Old SIC Code]</b>
	* indicates a code used by BCSP and CCHES
<b>11</b>	<b>Agriculture, Forestry, Fishing and Hunting [07]</b>
<b>21</b>	<b>Mining, Quarrying, and Oil and Gas Extraction [10]</b>
211	Oil and gas extraction
2121	Coal mining
2122	Metal ore mining
2123	Nonmetallic mineral mining and quarrying
213	Support activities for mining
<b>22</b>	<b>Utilities [49]</b>
2211	Electric power generation, transmission and distribution
2212	Natural gas distribution
2213	Water, sewage and other systems
<b>23</b>	<b>Construction (general)</b>
236	Construction of buildings [15]
237	Heavy and civil engineering construction [16]
238	Specialty trade contractors [17]
<b>31-33</b>	<b>Manufacturing</b>
311	Food manufacturing [20]
312	Beverage and tobacco product manufacturing [21]
313	Textile mills
314	Textile product mills [22]
315	Apparel manufacturing [23]
316	Leather and allied product manufacturing [31]
321	Wood product manufacturing [24]
322	Paper manufacturing [26]
323	Printing and related support activities [27]
324	Petroleum and coal products manufacturing (including refineries) [13, 29]
325	Chemical manufacturing [28]
326	Plastics and rubber products manufacturing [30]
327	Nonmetallic mineral product manufacturing
331	Primary metal manufacturing [33]
332	Fabricated metal product manufacturing (including ordnance) [34, 19]
333	Machinery manufacturing [35]
334	Computer and electronic product manufacturing [36]
335	Electrical equipment, appliance, and component manufacturing [36]
336	Transportation equipment manufacturing [37]
337	Furniture and related product manufacturing [25]
339	Miscellaneous manufacturing [39]
<b>42</b>	<b>Wholesale Trade [50]</b>
<b>44-45</b>	<b>Retail Trade (general) [52]</b>
447	Gasoline stations
452	General merchandise stores
459*	Other retail trade
<b>48-49</b>	<b>Transportation and Warehousing</b>
481	Air transportation [45]
482	Rail transportation [40]
483	Water transportation [44]
484	Truck transportation [42]
485	Transit and ground passenger transportation [41]
486	Pipeline transportation
491	Postal service
492	Couriers and messengers
499*	Other transportation and support services
<b>51</b>	<b>Information (general)</b>
511	Publishing industries (except Internet; including newspapers, books, periodicals, directories and software) [27]
512	Motion picture and sound recording industries [48]
515	Broadcasting (except Internet) [48]
517	Telecommunications [48]
518	Data processing, hosting, and related services
519	Other information services (including <u>libraries</u> ) [82]
<b>52</b>	<b>Finance and Insurance (general)</b>
524	Insurance carriers and related activities [63]
<b>53</b>	<b>Real Estate and Rental and Leasing</b>
531	Real estate [60]
532	Rental and leasing services
533	Lessors of nonfinancial intangible assets (except copyrighted works)
<b>54</b>	<b>Professional, Scientific, and Technical Services [89]</b>
5411	Legal services
5413	Architectural, engineering and related services
5416	Management, scientific, and technical consulting services (including safety, health & environmental)
5417	Scientific research and development services
5419	Other professional, scientific, and technical services
<b>55</b>	<b>Management of Companies and Enterprises</b>
<b>56</b>	<b>Administrative and Support and Waste Management and Remediation Services</b>
561	Administrative and support services
562	Waste management and remediation services
<b>61</b>	<b>Educational Services [82]</b>
6111	Elementary and secondary schools
6112	Junior colleges
6113	Colleges, universities, and professional schools
6116	Other schools and instruction
6117	Educational support services
<b>62</b>	<b>Health Care and Social Assistance [80]</b>
621	Ambulatory health care services
622	Hospitals
623	Nursing and residential care facilities
624	Social assistance
<b>71</b>	<b>Arts, Entertainment and Recreation</b>
<b>72</b>	<b>Accommodation and Food Services (general) [70]</b>
721	Accommodation
722	Food services and drinking places
<b>81</b>	<b>Other Services (except Public Administration)</b>
811	Repair and maintenance
812	Personal and laundry services
8139	Business, professional, labor, political, and similar organizations [86]
819*	Other Services
<b>92</b>	<b>Public Administration (Create a four character code by selecting the applicable 9xx functional category plus a fourth digit to indicate the government level)</b>
921x	Executive, legislative, and other general government support
922x	Justice, public order, and <u>safety</u> activities (including police, fire & safety agencies)
923x	Administration of human resource programs
924x	Administration of environmental quality programs
925x	Administration of housing programs, urban planning, and community development
926x	Administration of economic programs
927x	Space research and technology
928x	National security and international affairs
xxx1*	Federal [91]
xxx2*	State [93]
xxx3*	Local [92]
xxx4*	International [94]
	<b>Other BCSP Classifications</b>
96*	Unemployed
98*	Retired from full-time employment
99*	Nonclassifiable Establishments

# General Rules and Procedures

## Non-Discrimination

BCSP will evaluate your application objectively without regard to age, gender, race, religion, national origin, marital status, disability, or sexual orientation.

## Time Limits

Certain time limits apply to the OHST/CLCS process. Failure to meet these time limits will result in a terminated application. Upon termination, your application will be destroyed and you will have to reapply and begin the process again. See the following chart for time limit rules.

### Candidate Time Limits Rules

#### Examination Eligibility Time Limits

- Once BCSP declares you eligible for the OHST or CLCS examination, you must sit for the examination at least once every three years until achieving a passing score to remain an OHST/CLCS candidate.
- If you fail the OHST or CLCS examination, you must retake it within three years.

#### Examination Eligibility Extensions

- If you are eligible for the OHST/CLCS examination and cannot sit for the examination before your three-year time limit expires, you may purchase a one-year extension to your examination eligibility time limit. You may be eligible to purchase a second one-year time limit extension at the end of the first extension. You must contact the BCSP office to see if you are eligible.

#### Experience Qualification Time Limits

- If you do not meet the full experience or substituted education requirement and pass the OHST or CLCS examination, BCSP issues an Associate OHST or Associate CLCS designation. BCSP will estimate when you will complete your experience requirement based on employment at the time of application. BCSP will contact you when you have completed the estimated time to verify whether you have made progress in meeting the experience requirement by submitting an Experience Update Form.
- The maximum time during which someone can hold an associate designation is five years from the date of application.
- If you do not submit an Experience Update Form within 60 days following the notification, your application will be terminated from the certification process.

## Appeals

You may appeal decisions related to earning and maintaining BCSP credentials.

Requests for appeal must be submitted to the Executive Director in writing and in accordance to the current appeals policy located online at [www.bcspp.org/About\\_BCSP](http://www.bcspp.org/About_BCSP).

## Maintaining your Certification

After you achieve the OHST/CLCS certification, you must maintain your certification by:

- Paying an annual renewal fee; and
- Meeting Recertification requirements every five years.

### Annual Renewal Fees

Your OHST/CLCS certification extends for one calendar year at a time. To renew your OHST/CLCS, you must pay an annual renewal fee. Annual renewal fees are due on January 1 of every year. BCSP will send an invoice prior to the end of the year. Failure to pay your annual fee will result in revocation of your OHST/CLCS certification.

### Recertification

Once you achieve the OHST/CLCS certification, you will be required to meet Recertification requirements every five years. You will need to accumulate 20 points from 10 categories. The Recertification program helps to ensure that OHST/CLCSs stay current in the safety profession. Failure to meet the Recertification requirements will result in termination of the certification. *The Recertification Guide*, found on the BCSP web site, gives details about Recertification requirements.

# Overview of the OHST/CLCS Examination

## The OHST/CLCS Examination

The examinations are based on what OHSTs and CLCSs do in practice and the knowledge and skills required. The examination structure includes domains of practice and tasks. The examination covers the knowledge required within each task under each domain (pages 17 through 21).

A list of knowledge statements found in the examination blueprint organized by topic appears in Table 3 on page 22. This list provides another way to think of the knowledge covered on the examinations.

The OHST and CLCS examinations cover the same knowledge detailed in the examination blueprint (see pages 17 through 21) or listed in the subject outline (page 22). They differ slightly in the context of the examination items, since the CLCS examination is oriented toward insurance loss control work.

## General Description

The OHST and CLCS examinations consist of 200 multiple-choice items with four possible answers. Only one answer is correct. Each item is independent and does not rely on the correct answer to any other item. Data necessary to answer items are included in the item. Your score is based on the number of scored items you correctly answer.

You will have four hours to complete the OHST or CLCS examination. **Examinations are closed book, and accessing external reference materials during your examination is not permitted.** For use during the examination, the testing center will provide you with materials for working out calculations by hand. The *Examination Reference* (pages 35 and 36) will be available to candidates on every item. Both pages of the *Examination Reference* are available and can be viewed quickly while taking the examination.

## Calculations

Some items on BCSP examinations require you to make computations to determine the correct answer. Solutions to these items are usually rounded to two or three significant figures. You should select the answer closest to the computed value.

## Computer-based Testing

The OHST and CLCS examinations use computer-based testing, with one item appearing on the screen at a time. You will simply use a mouse to point to the desired answer and click on it to select it. Answers can be changed the same way.

You can mark items to return to later or simply skip them and move to the next item. At the end of the examination, there is a table of items and answers selected. The table also shows skipped and marked items. You can return to any item by simply clicking on the item number.

Prior to beginning the actual examination, there is a tutorial. After completing the examination, you will log off to formally submit your examination for scoring. You will then receive unofficial score results before you leave the testing center facility.

## Post-examination Surveys and Reporting Problems with Your Examination Experience

At the end of your examination (before you leave your computer testing workstation), you will have an opportunity to complete a brief survey. Please spend the time to answer the questions and make comments so BCSP can improve the OHST/CLCS certification process. Also, a few days after you complete your examination, Pearson VUE may select you to receive an online survey that relates to how well Pearson VUE managed your testing experience. BCSP encourages you to complete this survey if you are selected to receive it. Both surveys help BCSP and Pearson VUE measure and improve our services.

BCSP values your feedback, and if there were problems with your examination experience (e.g., computer delivery issues, delays in checking you in, power failures), we want to know about them as soon as possible. Within 30 days of your examination, notify BCSP directly if you experienced problems so we can investigate them. After 30 days elapse beyond your examination appointment, BCSP no longer can begin an investigation of any specific examination problems you encountered.

## Examinations Changes

Periodically, BCSP validates the content of the OHST and CLCS examinations to help ensure that the examination reflects what is important, relevant, and critical in safety and loss control practice. The process for validating certification examinations against current practices produces examination blueprints. The examination described in this document is based on the job task analysis and related validation study completed in 2003. The OHST or CLCS examination blueprint is described on pages 17 through 21.

## Examination Blueprint

Table 2 on page 13 shows the distribution of items among domains for the OHST or CLCS examinations.

**Table 2. Item Distribution by Domains**

Domain	Item Distribution on OHST/CLCS Examinations
Worksite Assessment	34%
Hazard Control and Loss Prevention	31%
Verification	17%
Disaster Planning and Emergency Response	14%
Professional Responsibility	4%

The chart on pages 17 through 21 provides complete details on the examination structure: domains, tasks, knowledge, and skills.

### Examination Passing Scores

BCSP uses a criterion-referenced procedure (the modified Angoff method) to establish minimum passing scores for examinations. This procedure ensures that your score is independent of scores for other candidates sitting for the examination. This procedure involves having a panel of experts rate each examination item with respect to a candidate who would just meet the minimum requirements to sit for the examination and should know the correct answer. The minimum passing score is calculated from results across all raters and across all examination items. The ratings reflect such things as the difficulty of items and the degree to which items are common for all areas of professional practice. As examinations are modified on a regular basis, the minimum passing score is adjusted for the difficulty of items on the examination. Item performance is also evaluated regularly to ensure that BCSP examinations maintain the highest testing standards.

### Examination Development and Revisions

BCSP updates examinations continuously. Most items come from safety and loss control specialists in practice. Before items are accepted into item banks, they go through rigorous technical, psychometric, and grammatical editing. In addition, practitioners with expertise in the subject area of the item review edited items on several criteria, including importance in and relevance to professional safety. Also, 10–15% of the items on BCSP examinations are experimental, and do not contribute to a candidate's pass/fail decision. BCSP analyzes the performance of these experimental items before deciding to include them in the official item bank. Items that successfully complete this quality process are placed in the item bank for potential use in examinations.

Throughout item development, examination development, examination revision, and examination administration, BCSP consults with experienced testing specialists (psychometricians) to ensure that BCSP examinations and the entire testing and certification process conform to acceptable practice.

### References

You can draw on study references in your own professional library or a company library. A list of published references providing reasonable coverage on the subject matter associated with the examination starts on page 26.

BCSP updates the list of references periodically on the BCSP web site at [www.bcsp.org](http://www.bcsp.org). Examination items are not necessarily taken directly from these sources. You may have previous or later editions or other references in your own library or in a company library that also present coverage on the subject matter.

The OHST and CLCS examinations require some knowledge of U.S. laws, regulations, and standards. You should not rely on these laws, regulations, and standards as the only source of information in preparing for the OHST or CLCS examination. Safety and loss control practice extends beyond compliance with published standards and deals with principles and practices that form the basis of standards or are relied upon when there are no standards.

# Sample OHST and CLCS Examination Items

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Safety and loss control specialists write draft items for the OHST and CLCS examinations. Draft items undergo several stages of review before being placed into the OHST and CLCS examination item bank. A few sample items are included in this section. The items illustrate the style and format typical of items on the OHST and CLCS examination. The OHST/CLCS Examination Blueprint Correlation shows where the sample item can correlate to a specific knowledge area in the OHST/CLCS blueprint (pages 18 through 22).

1. Which reference **best** defines various industries and describes the types of losses that these industries typically face?
  1. National Fire Codes®
  2. Best's *Loss Control Engineering Manual*
  3. Code of Federal Regulations
  4. United States Code

*OHST/CLCS Examination Blueprint Correlation: Domain 1, Task 1, Knowledge Area 4*

2. The following noise exposure data was collected for an employee over an eight-hour period.

Three hours at 92 dBA  
Two hours at 95 dBA  
Three hours at 90 dBA

According to federal OSHA hearing conservation standards, an employee may be exposed to 90 dBA for a maximum of eight hours, 92 dBA for a maximum of six hours, and 95 dBA for a maximum of four hours. The employee for whom noise data was collected sustained a noise exposure of \_\_\_\_\_ of the permissible exposure limit.

1. 95.5%
2. 100.0%
3. 108.2%
4. 137.5%

*OHST/CLCS Examination Blueprint Correlation: Domain 1, Task 2, Knowledge Area 1*

3. Methanol has a flash point of 52°F and a boiling point of 148°F. According to the National Fire Protection Association, this liquid is defined as Class:
  1. IA.
  2. IB.
  3. IC.
  4. II.

*OHST/CLCS Examination Blueprint Correlation: Domain 1, Task 3, Knowledge Area 7*

4. The Occupational Safety and Health Act of 1970 requires each employer covered by the Act to furnish employees with “places of employment which are free from recognized hazards that are causing or likely to cause death or serious physical harm.” This is also known as the:
  1. OSHA general hazard clause.
  2. Recognized hazard clause.
  3. Employment hazard clause.
  4. General duty clause.

*OHST/CLCS Examination Blueprint Correlation: Domain 1, Task 4, Knowledge Area 1*

5. An air-purifying respirator is equipped with a cartridge displaying a white color code. For what class of airborne contaminant does this cartridge provide respiratory protection?
1. Carbon monoxide
  2. Ammonia
  3. Organic vapors
  4. Acidic gases

*OHST/CLCS Examination Blueprint Correlation: Domain 2, Task 2, Knowledge Area 5*

6. A company has experienced four OSHA-recordable injuries and illnesses in one year. Employees at the company worked 250,000 hours during this year. The incidence rate, calculated using the federal OSHA technique, is:
1. 3.2
  2. 4.1
  3. 5.0
  4. 16.0

*OHST/CLCS Examination Blueprint Correlation: Domain 2, Task 4, Knowledge Area 1*

7. An eight-inch (diameter) grinding wheel spins at 2,000 revolutions per minute. You must calculate the grinding wheel's surface speed to ensure that that this tool is being used in accordance with the manufacturer's recommendations. The surface speed is:
1. 1,300 feet per minute.
  2. 4,200 feet per minute.
  3. 16,000 feet per minute.
  4. 50,200 feet per minute.

*OHST/CLCS Examination Blueprint Correlation: Domain 3, Task 1, Knowledge Area 7*

8. The **primary** source of error in colormetric sampling devices is:
1. Interference from other contaminants
  2. Gel coagulation
  3. Temperature miscalibration
  4. Pump air flow inaccuracy

*OHST/CLCS Examination Blueprint Correlation: Domain 3, Task 3, Knowledge Area 1*

9. To comply with the Clean Air Act of 1970, a facility using or storing specific regulated substances over a threshold amount must submit a Risk Management Plan (RMP) to the federal EPA that defines the facility's:
1. Plan for reducing the facility's inventory/use to below the threshold quantity.
  2. Plan to substitute the regulate substance with less hazardous substances.
  3. Worst-case regulated substance release scenario.
  4. Incident command tactics for managing a hazardous material emergency.

*OHST/CLCS Examination Blueprint Correlation: Domain 4, Task 1, Knowledge Area 2*

10. An Occupational Health and Safety Technologist or Certified Loss Control Specialist in full-time employment is offered an opportunity to perform safety-related consulting outside of full-time employment. Before accepting this work, the OHST/CLCS must consider whether this consulting work will cause the OHST/CLCS to:
1. Require time away from work to perform the consulting services.
  2. Have a conflict of interest with his or her full-time employer.
  3. Ask for a leave of absence from his or her full-time employer.
  4. Demonstrate compliance with additional Recertification requirements.

*OHST/CLCS Examination Blueprint Correlation: Domain 5, Task 1*

ANSWERS TO SAMPLE OHST/CLCS EXAMINATION ITEMS

Item No.	Correct Answer	Item No.	Correct Answer
1	2	6	1
2	4	7	2
3	2	8	1
4	4	9	3
5	4	10	2

# OHST/CLCS Examination Blueprint

The OHST/CLCS examination blueprint is based on what safety and loss control specialists do in practice. The chart below provides the details. The top levels, called domains, represent major functions that safety and loss control specialists perform. Within the domains are tasks. Most of the tasks have lists of knowledge and skills required to carry out this task.

<b>DOMAIN 1</b> <b>Worksite Assessment • 34%</b>	
<b>Task 1</b> Research information pertaining to the business or operation using appropriate tools and references (e.g., World Wide Web; federal and state regulations; consensus standards; and insurance loss control references) to obtain general risk data.	
<b>Knowledge</b> 1. World Wide Web 2. Internet search techniques 3. Computer databases 4. Insurance and loss control references 5. Federal, state, and local regulations (e.g., FDA, OSHA, EPA, and DOT) 6. Standard certifications and approvals (e.g., ANSI, ASTM, NIOSH, NFPA, and API) 7. Basic biological sciences, including toxicology and ergonomics	<b>Skills</b> 1. Using computers and software packages 2. Using Internet search engines 3. Using basic research techniques
<b>Task 2</b> Evaluate actual business and operations data (e.g., monitoring and surveillance data; OSHA logs; incident reports; safety and health programs; and insurance loss data) by comparing the data against internal history as well as national or industry standards in order to recognize and define risks.	
<b>Knowledge</b> 1. Benchmark standards (e.g., TLVs and PELs) 2. Acceptable ratios (e.g., loss ratios, incidence rates, and accident rates) 3. Data sampling procedures 4. Business terminology (e.g., financial terms) 5. Basic mathematics (e.g., algebra and ratios) 6. Spreadsheet, word processor, and database software	<b>Skills</b> 1. Analytical thinking (comparisons) 2. Communicating through talking and writing 3. Using computers and software packages
<b>Task 3</b> Conduct surveys of the business or operation in accordance with accepted survey methodology (e.g., observing the facility; referring to process flow charts; verifying safety and health systems; programs and documentation; and interviewing employees and management) in order to recognize hazards and controls.	
<b>Knowledge</b> 1. Properties of hazardous materials (e.g., basic chemistry and material safety data sheets) 2. Basic machine guarding techniques 3. Survey techniques (e.g., checklist, flow chart, and interviewing techniques) 4. Basic building design and construction (e.g., blueprints and major systems) 5. Behavioral science, including human factors 6. Sampling techniques (e.g., air sampling and noise monitoring) 7. Fire prevention and suppression equipment 8. Safety and health regulations and best practices 9. Life safety standards 10. Basic biological sciences, including toxicology and ergonomics	<b>Skills</b> 1. Conducting interviews 2. Calibrating test equipment 3. Surveying facilities and operations 4. Reading blueprints 5. Measuring building dimensions 6. Computing sample sizes and interpreting data
<b>Task 4</b> Communicate the results of surveys to management with appropriate documentation in order to educate management about risks and to recommend and justify appropriate actions for managing current and potential loss scenarios.	
<b>Knowledge</b> 1. Federal, state, and local regulations (e.g., FDA, OSHA, EPA, and DOT) 2. Basic cost-benefit analysis 3. Organizational types and structures 4. Typical communication channels	<b>Skills</b> 1. Communicating through talking and writing 2. Interpreting regulations 3. Operating within the corporate environment

**DOMAIN 2**  
**Hazard Control and Loss Prevention • 31%**

**Task 1**

Evaluate risks using established analytical techniques in order to prioritize corrective actions.

**Knowledge**

1. Formulas (e.g., mathematical, scientific, and statistical)
2. Problem solving techniques
3. Federal, state, and local regulations (e.g., FDA, OSHA, EPA, and DOT)
4. Industry standards and best practices
5. Internal standards
6. Basic biological sciences, including toxicology and ergonomics
7. Basic life and physical sciences
8. Basic health concepts

**Skills**

1. Interpreting exposure limits
2. Reading material safety data sheets
3. Thinking critically

**Task 2**

Select hazard control measures by reviewing available options and choosing the most appropriate in order to manage risk.

**Knowledge**

1. Federal, state, and local regulations (e.g., FDA, OSHA, EPA, and DOT)
2. Industry standards and best practices
3. Industrial processes
4. Administrative controls
5. Personal protective equipment
6. Engineering controls
7. Hierarchy of controls
8. Basic ventilation
9. Basic machine guarding techniques
10. Basic life and physical sciences
11. Basic engineering concepts
12. Basic ventilation measurement

**Skills**

1. Selecting personal protective equipment
2. Thinking critically

**Task 3**

Communicate the identified hazard control measures (e.g., recommend engineering, administrative, and personal protective equipment controls) by identifying essential resources and implementation strategies in order to manage risk.

**Knowledge**

1. Organizational types and structures
2. Strategies for prioritization of risks, hazard control measures, etc.
3. Necessary financial resources
4. Basic cost-benefit analysis
5. Basic financial terminology
6. Safety and health programs

**Skills**

1. Communicating through talking and writing
2. Negotiating
3. Presenting
4. Teaching

**Task 4**

Assist with the implementation of controls as appropriate (e.g., organize committees; plan, conduct or provide training; maintain records; collect data; collaborate with contractors; select equipment; and manage respirator, confined space entry, lock out/tag out, and other safety and health programs) in order to manage risk.

**Knowledge**

1. OSHA record keeping
2. Safety and health programs
3. Protocols for the calibration, maintenance, and use of sampling/monitoring equipment
4. Effective training solutions
5. Industry standards

**Skills**

1. Organizing
2. Managing projects
3. Interpreting analytical data
4. Influencing and persuading others
5. Training
6. Researching and gaining access to documents
7. Calibrating, maintaining, and using sampling/monitoring equipment

**DOMAIN 3**  
**Verification • 17%**

**Task 1**

Verify that recommended hazard controls are implemented using management and evaluation techniques (e.g., site surveys, review of records, audits, interviews with key personnel, and follow up with the responsible individuals) in order to ensure risks are adequately managed.

**Knowledge**

1. Federal, state, and local regulations (e.g., FDA, OSHA, EPA, and DOT)
2. Standard certifications and approvals (e.g., ANSI, ASTM, NIOSH, NFPA, and API)
3. Industry standards and best practices
4. Properties of hazardous materials (e.g., basic chemistry and material safety data sheets)
5. Behavioral science, including human factors
6. Material safety data sheets
7. Basic life and physical sciences
8. Organizational types and structures
9. Types of and methods for conducting audits (e.g., internal and regulatory)

**Skills**

1. Conducting interviews
2. Listening actively
3. Using computers and software packages
4. Conducting verification audits and site surveys
5. Communicating through talking and writing

**Task 2**

Investigate incidents, accidents, and near misses using established techniques in order to determine root causes and formulate or update corrective action plans.

**Knowledge**

1. Basic elements of risk analysis (e.g., failure mode and effects analysis, fault tree analysis, and root cause analysis)
2. Federal OSHA techniques for computing incidence rates
3. Hazard controls (e.g., engineering controls, administrative controls, and personal protective equipment)
4. Investigative techniques
5. Basic life and physical sciences
6. Basic mathematics (e.g., algebra and ratios)

**Skills**

1. Computing incidence rates using federal OSHA techniques
2. Conducting interviews
3. Listening actively
4. Communicating through talking and writing

**Task 3**

Assess the effectiveness of specified hazard controls by analyzing performance data (e.g., records, loss data, incidence rates, environmental samples, and incident reports) in order to ensure risks are adequately managed.

**Knowledge**

1. Industrial hygiene sampling techniques
2. Industry (e.g., NAISS, BLS) incidence rates
3. Federal, state, and local regulations (e.g., FDA, OSHA, EPA, and DOT)
4. Standard certifications and approvals (e.g., ANSI, ASTM, NIOSH, NFPA, and API)
5. Types of medical surveillance
6. Basic life and physical sciences
7. Basic statistics

**Skills**

1. Using sampling protocols
2. Calibrating, maintaining, and using sampling/monitoring equipment
3. Computing sampling volumes
4. Computing and interpreting statistical analyses

**DOMAIN 4**  
**Disaster Planning and Emergency Response • 14%**

**Task 1**

Identify catastrophic and emergency response scenarios (e.g., fires/explosions, natural disasters, chemical releases, terrorism, and medical emergencies) using established techniques in order to anticipate risks.

**Knowledge**

1. Consensus standards (e.g., NFPA)
2. Federal, state, and local regulations (e.g., FDA, OSHA, EPA, and DOT)
3. Material safety data sheets
4. Modeling development
5. Local, regional, and federal resources (e.g., civil defense, FEMA, local fire and police, medical facilities)
6. Characteristics of emergencies and natural disasters
7. Behavioral science, including human factors
8. System failures
9. Prior analyses conducted at the facility
10. Physical and electronic security

**Skills**

1. Basic modeling
2. Performing basic risk assessments
3. Identifying risk

**Task 2**

Evaluate scenarios using established techniques in order to characterize the probability and severity of occurrence.

**Knowledge**

1. Basic risk assessment
2. Basic cost-benefit analysis
3. Organizational types and structures
4. Basic mathematics (e.g., algebra and ratios)
5. Basic life and physical sciences

**Skills**

1. Computing cost-benefit analysis
2. Using statistical analytical techniques
3. Using qualitative analytical techniques

**Task 3**

Develop response plans for scenarios by reviewing available options, selecting viable strategies, and documenting action plans in order to ensure appropriate response to disasters and other emergencies.

**Knowledge**

1. Basic fire science
2. Behavioral science, including human factors
3. Basic life and physical sciences
4. Basic mathematics (e.g., algebra and ratios)
5. Properties of hazardous materials (e.g., basic chemistry and material safety data sheets)
6. Common methods of terrorism
7. Emergency equipment and supplies
8. Community response plans
9. Regulations (e.g., Incident Command System)

**Skills**

1. Communicating through talking and writing
2. Planning and developing disaster plans and emergency response

**Task 4**

Recommend administrative and engineering strategies for scenarios through communication with management in order to justify appropriate actions for managing responses to disasters and other emergencies.

**Knowledge**

1. Characteristics of emergencies and natural disasters
2. Basic risk assessment
3. Administrative and engineering disaster response strategies
4. Basic life and physical sciences
5. Mutual aid agreements
6. Organizational types and structures

**Skills**

1. Communicating through talking and writing
2. Facilitating team process

**DOMAIN 4 (continued)**  
**Disaster Planning and Emergency Response**

**Task 5**

Assist with the implementation of assigned responsibilities for response plans as appropriate (e.g., organize committees, provide training, collaborate with contractors, select equipment, and manage specific programs) in order to ensure appropriate response to disasters and other emergencies.

**Knowledge**

1. Behavioral science, including human factors
2. Adult learning principles
3. Available emergency equipment
4. Regulatory and consensus standards (e.g., EPA and OSHA)
5. Community response plans

**Skills**

1. Communicating through talking and writing
2. Facilitating committees
3. Training diverse populations

**Task 6**

Evaluate the currency and effectiveness of response plans at regularly scheduled intervals by reviewing their applicability for present and emerging conditions (e.g., changes in organizational structure, and new processes or materials) in order to update the plans and ensure appropriate response to disasters and other emergencies.

**Knowledge**

1. Procedure, process, and equipment evaluation
2. Evaluation of training methods (e.g., exercises, drills, and surveys)
3. Emergency equipment inspection and required performance tests
4. Federal, state, and local regulations (e.g., FDA, OSHA, EPA, and DOT)

**Skills**

1. Using qualitative analytical techniques
2. Inspecting and using emergency equipment
3. Training diverse populations
4. Conducting and evaluating exercises, drills, and surveys

**DOMAIN 5**  
**Professional Responsibility • 4%**

**Task 1**

Apply the *BCSP Code of Ethics* or the *BCSP Technician and Technologist Code of Ethics*

**Task 2**

Understand BCSP disciplinary standards and procedures.

**Task 3**

Participate in professional development.

**Table 3. Outline of Knowledge Required for Occupational Health and Safety Technologist and Certified Loss Control Specialist Practice**

([xx] is number of times a knowledge statement appears in the examination blueprint.)

*Note: The knowledge topical structure is the same as that used to analyze the knowledge required for professional safety practice.*

<p><b>GENERAL</b></p> <p><b>Laws, Regulations, Standards, Government</b> Federal, state, and local regulations (e.g., FDA, OSHA, EPA, and DOT) [8] Standard certifications and approvals (e.g., ANSI, ASTM, NIOSH, NFPA, and API) [3] Benchmark standards (e.g., TLVs and PELs) Consensus standards (e.g., NFPA) Regulatory and consensus standards (e.g., EPA and OSHA) Industry standards and best practices [3] Industry standards [2]</p> <p><b>Mathematics, Statistics,</b> Data sampling procedures Basic mathematics (e.g., algebra and ratios) [4] Formulas (e.g., mathematical, scientific, and statistical) Basic statistics</p> <p><b>Physical, Life &amp; Chemical Sciences</b> Basic biological sciences, including toxicology and ergonomics [3] Basic life and physical sciences [8] Basic health concepts</p> <p><b>Technology</b></p> <p><b>Engineering</b> Industrial processes Basic engineering concepts</p> <p><b>Facilities</b> Basic building design and construction (e.g., blueprints and major systems)</p> <p><b>Equipment</b></p> <p><b>Processes</b></p> <p><b>Computers</b> World Wide Web Internet search techniques Computer databases Spreadsheet, word processor, and database software</p> <p><b>Systems</b></p> <p><b>Behavioral and Organizational Science</b> Behavioral science, including human factors [5]</p> <p><b>Business and Management</b> Business terminology (e.g., financial terms) Basic financial terminology Basic cost-benefit analysis [3] Organizational types and structures [5] Problem solving techniques Necessary financial resources</p> <p><b>Training/Education</b> Effective training solutions Adult learning principles</p> <p><b>Communication</b> Typical communication channels</p> <p><b>Security</b> Physical and electronic security Common methods of terrorism</p>	<p><b>SAFETY, HEALTH, ENVIRONMENT &amp; ERGONOMICS</b></p> <p><b>General</b> Safety and health regulations and best practices Industry (e.g., NAISS, BLS) incidence rates Types of medical surveillance</p> <p><b>SHE in Design, Controls, Technology</b> Basic machine guarding techniques [2] Engineering controls Hierarchy of controls</p> <p><b>Risk Management &amp; Insurance</b> Insurance and loss control references Acceptable ratios (e.g., loss ratios, incidence rates, and accident rates) Strategies for prioritization of risks, hazard control measures, etc. Basic risk assessment [2]</p> <p><b>Safety Management</b> Administrative controls Personal protective equipment Hazard controls (e.g., engineering controls, administrative controls, and personal protective equipment) Safety and health programs [2] OSHA record keeping Federal OSHA techniques for computing incident rates Material safety data sheets [2]</p> <p><b>Inspections, Investigations, Audits</b> Survey techniques (e.g., checklist, flow chart, and interviewing techniques) Types of and methods for conducting audits (e.g., internal and regulatory) Investigative techniques</p> <p><b>Fire Protection</b> Fire prevention and suppression equipment Life safety standards Basic fire science</p> <p><b>Industrial Hygiene</b> Sampling techniques (e.g., air sampling and noise monitoring) Basic ventilation Basic ventilation measurement Protocols for the calibration, maintenance, and use of sampling and monitoring equipment Industrial hygiene sampling techniques</p> <p><b>Ergonomics</b> See: <b>Behavioral and Organizational Science</b> <b>Physical, Life &amp; Chemical Sciences</b></p> <p><b>Environmental</b> Properties of hazardous materials (e.g., basic chemistry and material safety data sheets) [3]</p> <p><b>Emergencies</b> Modeling development Local, regional, and federal resources (e.g., civil defense, FEMA, local fire and police, medical facilities) Characteristics of emergencies and natural disasters [2] Prior analyses conducted at the facility Emergency equipment and supplies Available emergency equipment Community response plans [2]</p>	<p>Regulations (e.g., Incident Command System) Administrative and engineering disaster response strategies Mutual aid agreements Procedure, process, and equipment evaluation Evaluation of training methods (e.g., exercises, drills, and surveys) Emergency equipment inspection and required performance tests</p> <p><b>Professional Development and Ethics</b> Apply the Health and Safety Technologist/Technician Code of Ethics Understand OHST disciplinary standards and practices. Participate in professional development.</p> <p><b>Applied SHE - Systems</b> Basic elements of risk analysis (e.g., failure mode and effects analysis, fault tree analysis, and root cause analysis) System failures</p>
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# Preparing for the OHST/CLCS Examination

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You may use various approaches to prepare for the OHST or CLCS examination, including:

- Performing individual study.
- Participating in informal study groups.
- Attending formal review courses.
- Completing practice examinations.

Some keys to success include:

- Knowing your strengths and weaknesses.
- Having an examination preparation plan.
- Developing a test-taking strategy.
- Understanding how to use your calculator.

## Knowing Your Strengths and Weaknesses

A self-evaluation will help you determine how well you know various subjects included on the OHST and CLCS examinations. Simply rate yourself on each major and minor subject area included on the examination. Focus especially on the knowledge and skill statements, since they form the basis for examination items. The safety and loss control discipline requires knowledge in many different subjects.

## Having an Examination Preparation Plan

You can use your ratings to help establish a study plan. The examination blueprint shows how the items on an examination are distributed across domains and tasks. While the exact number of items devoted to each task may vary on an actual examination, one can estimate about how many items may be devoted to each particular subject by assuming a uniform distribution within a domain.

The total number of items that you get correct on the OHST or CLCS examination determines whether you pass. The goal is to get enough items correct to pass the examination. Scoring well in one subject area can compensate for a weaker score in another subject area. However, there may not be enough items in your strong areas to achieve a passing score. Most likely you will have to get items correct in your moderate and weak areas.

Use this information to form a preparation strategy. If you know a subject well and are likely to get most items for that subject correct on the examination, you have few additional opportunities to increase your score within that subject. If you are likely to get few items correct for another subject, you have a larger number of chances to gain points by studying that subject.

Convert your subject strengths and weaknesses into a study plan that is likely to increase your overall examination score. You will want to refresh your knowledge in all subjects. It is also a good idea to study subjects that offer the greatest opportunity to increase your overall score.

Make a chart of subjects. List for yourself how you will prepare for each subject. You may want to identify study hours for each, create a study schedule, or even chart out how you plan to prepare for each subject (reading, practicing working calculations, study group, refresher course, etc.). A list of published references providing reasonable coverage on the subject matter associated with the OHST and CLCS examinations starts on page 27.

Note that knowledge and understanding are essential in passing the examinations. Relying only on practice examination questions is not the best way to increase knowledge and understanding that form the foundation for examination questions.

## Developing a Test-taking Strategy

Knowing how to take examinations will help improve your score. The OHST and CLCS examinations use multiple-choice items. Each item has one correct answer and three incorrect answers. Remember, the goal is to get as many items correct as possible. There is no penalty on the OHST/CLCS examination for incorrect answers. Only correct answers count toward reaching the passing score. All items have the same value.

### *Understand Item Construction*

A four-choice, objectively scored examination item contains an item stem and four possible answers. The premise, or lead-in statement or question, is called the stem. One of the choices is correct and three are not.

### *Guess Intelligently*

If you do not know the answer to an item or are not sure about it, you should guess intelligently. Look for choices that you know are incorrect or do not appear as plausible as others. Choose your answer from among the remaining choices. This increases your odds of selecting a correct answer.

### *Read the Items Carefully*

Read each item carefully. Consider the item from the viewpoint of an examination writer. Look for the item focus. Each item evaluates some subject or piece of knowledge. Try to identify what knowledge the item is trying to test. Avoid reading things into an item. The item can only test on the information actually included.

Recognize that the stem for some items may include information that is not needed to answer the question.

### *Consider the Context*

Often an item is framed around a particular industry or situation. Even if you do not work in that industry or have not experienced a particular situation, the item may be testing knowledge that you have. Avoid dismissing an item because of the context.

### *Use Examination Time Wisely*

When taking your examination, complete those items first that you know or can answer quickly. Then go back to items that were difficult for you or required considerable time to read, analyze, or compute. This approach allows you to build your score as quickly as possible. You may want to go back over skipped or marked items several times.

### *Complete Skipped Items*

After you have gone through the examination once or if you are running out of time, look for items that you have not answered. Select an answer for any skipped or incomplete item. By chance alone, you can get one of every four correct. Wrong answers have no penalty.

### *Go Back to Troublesome Items*

Mark items that you are not sure about or items that are difficult for you. After you have worked through the entire examination, go back to marked items. Reread the items and study the choices again. You may recall some knowledge or information that you had not considered earlier and be able to answer the item correctly. You may also be able to eliminate a choice that is not correct and increase your chances of guessing the correct answer.

### **Understanding How to Use Your Calculator**

Some items on the OHST and CLCS examinations require completing calculations to obtain the correct answer. You must bring your own calculator(s) and your calculator(s) must meet BCSP calculator rules (page 30). Make sure you know how to use your calculator. You can waste valuable time figuring out how to use it after you are at the examination. You can also make errors in computations if you have not practiced using your calculator. It is a good idea to practice working solutions to computational problems to remember the correct procedures.

### **The OHST and CLCS Self-assessment Examination**

BCSP publishes self-assessment examinations for OHST and CLCS examinations. Many candidates find it helpful in examination preparation. It can help diagnose how well you know the body of knowledge and help refresh test-taking skills.

To order a self-assessment examination, contact BCSP, order it online at [www.bcsp.org](http://www.bcsp.org), or use the order form at the end of this section.

The self-assessment examination is 50% of the length of a full examination. It contains items that have been retired from past editions of examinations. The self-assessment examination document includes scoring sheets and a chart of correct answers. It also includes solutions to computational items and explanations for correct answers for other items, along with detailed references.

### **Other Review and Study Sources**

A number of professional membership organizations, trade organizations, universities, and private companies offer study courses, software, and materials to assist candidates with preparing for the OHST and CLCS examination. Because candidates for the OHST or CLCS examination often ask where to locate review courses and materials, the following list is provided as a courtesy. It does not include all providers nor is it updated regularly.

**Other than materials copyrighted and/or published by BCSP (e.g., *Candidate Handbook*, self-assessment examination), BCSP does not have any involvement in the development, content, or distribution of any courses or materials associated with preparing for BCSP certification examinations. BCSP does not endorse any of the providers listed, nor does BCSP evaluate the providers or the providers' materials for consistency with the OHST/CLCS examination blueprint.**

Contact the sources directly about materials, course schedules, fees, or matters related to satisfaction with their products or services.

### **Examination Security**

A key to a successful and respected certification program is examination security. Without it, a program has little value. BCSP relies on the ethical behavior of candidates and certificants to maintain the security of BCSP examinations.

The only information BCSP provides about the content of the OHST and CLCS examinations is the detailed examination blueprint (pages 18 through 22). The blueprint is available to anyone. When those who hold the OHST or CLCS certification or those who are pursuing the OHST or CLCS certification reveal information about the content of the OHST and CLCS examinations (other than what

is on the published OHST and CLCS examinations blueprint), they violate the agreement all candidates accept when they apply for certification and when they take an examination.

In addition, BCSP will pursue legal action against organizations or individuals not seeking certification who reveal information about the content of the OHST or CLCS examinations (other than that which is on the published OHST/CLCS examination blueprint).

BCSP copyrights the OHST and CLCS examinations. Applicants, candidates, or certificants who reveal information about the content of BCSP examinations through any means also violate the BCSP Operating Procedures and the *OHST/CLCS/CHST Code of Ethics*.

BCSP has taken action and will continue to take action against individuals who violate this trust. Penalties include permanently barring individuals from pursuing any BCSP designation and revoking their BCSP certifications, in addition to other legal remedies.

## REVIEW AND STUDY SOURCES

C = Course G = Guide S = Software

<b>American Society of Safety Engineers</b> .....	C, G
1800 East Oakton Street Des Plaines, IL 60018-2187 (847) 699-2929 <a href="http://www.asse.org">www.asse.org</a>	
<b>Datachem Software, Inc.</b> .....	S
69 Milk Street Suite 300 Westborough, MA 01581-1224 (800) 377-9717 <a href="http://www.datachemsoftware.com">www.datachemsoftware.com</a>	
<b>Langlois, Weigand &amp; Associates, Inc.</b> .....	C
3933 Overlook Point Court Baton Rouge, LA 70817-1619 (225) 755-4099	
<b>Span International Training</b> .....	C, G
4226 Greenbriar Drive Nixa, MO 65714-8131 (888) 589-6757 <a href="http://www.spantraining.com">www.spantraining.com</a>	

# Published References Presenting Coverage of Subject Matter Associated with the OHST/CLCS Examination Blueprint

You should also draw on study references in your own library or a company library. These published references provide reasonable coverage on the subject matter associated with the OHST/CLCS examination blueprint. Examination items are not necessarily taken directly from these sources. You may have previous or later editions of these or other references available that also present acceptable coverage on the subject matter.

Reference Name	Domains Covered by Reference				
	1	2	3	4	5
A.M. Best Company, <i>Best's Loss Control Engineering Manual</i> , Oldwick, NJ.	•				
American Conference of Governmental Industrial Hygienists, <i>Industrial Ventilation</i> , 24th Edition, Cincinnati, OH, 2001.		•			
American Conference of Governmental Industrial Hygienists, <i>Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents and Biological Exposure Indices (BEIs®)</i> , Cincinnati, OH, 2003.	•	•	•		
Basic textbooks in mathematics, chemistry, physics, statistics, psychology, biological sciences, communications, training, and business.	•	•	•		
Brauer, Roger, L., <i>Safety and Health for Engineers</i> , John Wiley & Sons, New York City, NY, 1990.	•	•			•
Clayton, George D., and Florence E., <i>Patty's Industrial Hygiene and Toxicology</i> , 4th Edition, Part A., John Wiley and Sons, New York, NY, 1991.		•			
<i>Code of Federal Regulations</i> , Title 29 (Labor), Part 1902.	•				
<i>Code of Federal Regulations</i> , Title 29 (Labor), Part 1903.	•	•			
<i>Code of Federal Regulations</i> , Title 29 (Labor), Part 1910.	•	•	•	•	
<i>Code of Federal Regulations</i> , Title 29 (Labor), Part 1926.	•	•	•		
<i>Code of Federal Regulations</i> , Title 40 (Protection of Environment).	•	•	•	•	
<i>Code of Federal Regulations</i> , Title 49 (Transportation).		•		•	
Cote, Arthur (editor), <i>Fire Protection Handbook</i> , 19th Edition, National Fire Protection Association, Quincy, MA, 2003.	•	•	•	•	
Council on Certification of Health, Environmental and Safety Technologists (BCSP), <i>Recertification Guide</i> , Savoy, IL.					•
Council on Certification of Health, Environmental and Safety Technologists (BCSP), <i>General Operating Procedures</i> , Savoy, IL.					•
Council on Certification of Health, Environmental and Safety Technologists (BCSP), <i>OHST/CLCS Candidate Handbook</i> , Savoy, IL.					•
DiBerardinis, Louis J. (editor), <i>Handbook of Occupational Safety and Health</i> , 2nd Edition, John Wiley and Sons, New York, 1998.	•	•	•		
DiNardi, Salvatore (editor), <i>The Occupational Environment: Evaluation and Control</i> , AIHA Press, Fairfax, VA, 1997.			•		
Ellis, J. N., <i>Introduction to Fall Protection</i> , 2nd Edition, American Society of Safety Engineers, Des Plaines, IL, 1993.		•			
<i>Ergonomics Design Guidelines</i> , Auburn Engineers, Inc., Auburn, AL, 1997.		•			
Factory Mutual Global, <i>Property Loss Prevention Data Books</i> , Johnston, RI.	•				
Griffin, R. D., <i>Principles of Hazardous Materials Management</i> , CRC Press/Lewis Publishers, Boca Raton, FL, 1988.	•	•	•		
Hammer, Willie, <i>Occupational Safety Management and Engineering</i> , 4th Edition, Prentice-Hall, Englewood Cliffs, NJ, 1989.	•	•			
Kaletsky, Rick, <i>OSHA Inspections</i> , McGraw-Hill, New York, NY 1996.	•		•		
Kim, Unhee, <i>Environmental and Safety Auditing</i> , Lewis Publishers, Boca Raton, FL, 1997.	•		•		
Klaassen, Curtis D. (editor), <i>Casarett and Doull's Toxicology</i> , 5th Edition, McGraw-Hill, New York, NY, 1996.		•			

References	Domains Covered by Reference				
	1	2	3	4	5
Koren, Herman, <i>Handbook of Environmental Health and Safety</i> , Volumes I and II, 2nd Edition, Lewis Publishers, Boca Raton, FL, 2000.	•	•			
Manuele, Fred A., <i>On the Practice of Safety</i> , 3rd Edition, John Wiley and Sons, New York, NY, 2003.	•	•			
National Fire Protection Association, <i>National Fire Codes</i> , Quincy, MA.	•	•			
National Safety Council, <i>Accident Prevention Manual for Business and Industry, Administration and Programs</i> , 12th Edition, NSC Press, Itasca, IL, 2001.	•	•	•	•	
National Safety Council, <i>Accident Prevention Manual for Business and Industry, Engineering and Technology</i> , 12th Edition, NSC Press, Itasca, IL, 2001.		•		•	
National Safety Council, <i>Supervisor's Safety Manual</i> , 9th Edition, NSC Press Itasca, IL, 1997.	•	•	•	•	
Perkins, Jimmy L., <i>Modern Industrial Hygiene</i> , Volume 1, Van Nostrand Reinhold, New York, NY, 1997.	•	•			
Plog, Barbara (editor), <i>Fundamentals of Industrial Hygiene</i> , 5th Edition, NSC Press, National Safety Council, Itasca, IL, 2002.	•	•	•		
Public Law 91-596, <i>Occupational Safety and Health Act of 1970</i> .	•				
Scott, Ronald M., <i>Introduction to Industrial Hygiene</i> , CRC Press/Lewis Publishers, Boca Raton, FL, 1995.	•	•			
Stringfield, William H., <i>Emergency Planning and Management</i> , 2nd Edition, Government Institutes, Rockville, MD, 2000.				•	
Varela, Joe (editor), <i>Hazardous Materials Handbook for Emergency Responders</i> , Van Nostrand Reinhold, New York, NY, 1996.				•	

# Taking the OHST or CLCS Examination

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BCSP uses computer delivered examinations at testing centers operated by Pearson VUE. You do not need computer skills. Once BCSP makes you eligible for the OHST or CLCS examination and you are ready to take the examination, you need to take the following actions.

- Locate a Pearson VUE Testing Center
- Purchase an Examination Authorization
- Receive Your Examination Authorization Letter
- Schedule an Examination Appointment
- Take the Examination

After you take an examination, BCSP will mail your official examination result and related materials to you.

## Locate a Pearson VUE Testing Center

To ensure that a Pearson VUE testing center is suitably convenient to you, visit [www.pearsonvue.com/BCSP](http://www.pearsonvue.com/BCSP). Click on the “Locate a testing center” link in the lower half of the web site page. If you do not have Internet access, contact BCSP to help you find a nearby testing center.

## Purchase an Examination Authorization

After BCSP sends you a notice that you are eligible to sit for a BCSP examination, you may register with BCSP to take an examination at any time within your eligibility time limit rules (page 11).

If you contact BCSP by phone to register and pay for an examination authorization, a BCSP customer service professional will verify that you are eligible for the examination and ask you for credit card/debit card information. You may also pay for your examination authorization by personal check or money order by following the instructions in your notice of eligibility letter.

## Receive Your Examination Authorization Letter

After you pay for an examination authorization, BCSP will mail or email you an Examination Authorization Letter. In it are detailed instructions for scheduling an examination appointment at a Pearson VUE testing center. Have this letter available when you create your online Web account to schedule your appointment online, or when you make your appointment with Pearson VUE by phone.

## Schedule an Examination Appointment

After you receive your Examination Authorization Letter, you must schedule an examination appointment directly with Pearson VUE. A brochure sent with your Examination Authorization Letter will have additional details for scheduling and rescheduling (if

necessary) your examination appointment. Some of the rules are outlined on page 11 of this publication.

BCSP examinations are available at Pearson VUE testing centers around the world. Visit [www.pearsonvue.com/BCSP](http://www.pearsonvue.com/BCSP) to locate a testing center near you. All centers are open during normal weekday business hours, and some have weekend and holiday hours.

**Make your appointment as soon as possible after you receive your Examination Authorization Letter since available appointment times at Pearson VUE testing centers are reserved early. BCSP strongly recommends making your appointment eight or more weeks in advance. If you wait too long and find that you are unable to make an appointment to take your examination within your examination authorization period, you will forfeit your examination authorization fee, and you will have to purchase a new examination authorization to sit for the examination, if you are still eligible.**

When you make your appointment, Pearson VUE will send you a confirmation letter by email or mail containing your examination appointment details along with driving instructions and other information. After scheduling your appointment, BCSP suggests that you confirm your appointment location, date, and time online at [www.pearsonvue.com/BCSP](http://www.pearsonvue.com/BCSP).

## Take the Examination

### *Arrival and Preliminary Procedures*

Consider arriving at the Pearson VUE testing center 30 minutes before your appointment starting time to help ensure your sign-in procedure goes smoothly. The Pearson VUE testing center staff will tell you where to secure your coat and other personal belongings and show you the location of the restrooms. If you arrive 15 minutes or more after your appointment starting time, you will be refused admission, and you will forfeit your examination authorization fee.

### *Presenting Your Identification*

The testing center staff will ask you to present acceptable identification and ask you to sign your name in a logbook. Depending on where you are scheduled to take your examination, the testing center staff also may take your picture and obtain electronic fingerprint data to confirm your identity.

**You must bring a valid, unexpired government-issued identification document bearing both your picture and signature. Your name on this identification document must exactly match the name you used when you applied for certification with BCSP. If you are not a citizen of the country in which you are testing, the only acceptable identification document is your valid, unexpired passport.**

Examples of acceptable identification for testing **within** the country of your citizenship include your valid, unexpired passport or your valid, unexpired, non-temporary North American state or provincial driver's license/identification card, military identification card, national identification card, European Identity card, or permanent resident card. If the identification document you present is expired, invalid, or does not have both your picture and signature, you will be refused admission, and you will forfeit your examination authorization fee.

There are additional identification requirements for foreign nationals testing in the People's Republic of China and Hong Kong, and for citizens of countries against which the U.S. is enforcing economic and trade sanctions. If you are in one of the above situations, or if you have any questions related to the presentation of acceptable identification, contact BCSP before scheduling your examination appointment.

### *Final Sign-in Procedures*

The testing center staff will then provide you with materials for working out calculations by hand. If you intend to take one or two calculators with you into the secure testing room, the testing center staff will inspect each calculator and verify that each calculator complies with the published BCSP calculator rules in effect when you sit for the examination.

#### **BCSP Calculator Rules**

The following are the **only** makes and models of calculators permitted.

- Casio models FX-115, FX-250, FX-260, FX-300
- Hewlett-Packard models hp 9, hp 10, hp 12, hp 30
- Texas Instruments models TI-30, TI-34, TI-35, TI-36

Any version of these makes and models may be used. For example, a Hewlett-Packard hp 30s is permitted, as is a Texas Instruments TI-30Xa.

### *Examination Integrity and Security*

After the sign-in procedure is completed, the testing center staff will escort you into the secure testing room and seat you at your computer testing workstation. Other than the materials provided by the testing center staff for working out calculations and your authorized calculators, you cannot take any notes, books, papers, purses, hats, coats, jackets, pagers, mobile telephones, or other materials or electronic devices into the secure testing room. In addition, no food, drinks, or tobacco products are permitted in the secure testing room at any time. All such items must be stored outside the secure testing room. You may access only your stored food, drinks, or tobacco products (when permitted by local law) during self-scheduled breaks you take outside the secure testing room. You may not access your other personal belongings at all until you complete your examination. During breaks, you are not permitted to have contact with anyone other than the testing center

staff.

Therefore, for the duration of the examination (i.e., while your examination clock is running, including during self-scheduled breaks), you **shall not**:

- Consult verbally, electronically, or in writing with any person other than testing center staff;
- Consult any written or electronic reference other than your authorized calculator(s) and the materials for working out calculations provided by the testing center staff;
- Leave your computer testing workstation, except to take a self-scheduled break **within** the building (or part of the building) controlled by Pearson VUE; or
- Leave the building (or part of the building) controlled by Pearson VUE.

Several security procedures are in place at Pearson VUE testing centers. Pearson VUE formally documents all irregularities, and BCSP evaluates these irregularities to determine appropriate action. Depending on the irregularity, BCSP may invalidate your examination and take additional disciplinary actions in accordance with BCSP's Operating Procedures if you access prohibited materials, have contact with anyone except testing center staff, leave the testing center while your examination clock is running, engage in unethical, disruptive, or unprofessional conduct, or violate any other BCSP or Pearson VUE security procedures at a testing center.

### *Examination Tutorial*

When you are ready to begin your examination, you will log on as instructed by the testing center staff. There will be several introductory screens, including a screen where you will have to accept BCSP's Security and Confidentiality Agreement prior to actually viewing any examination content. Once you accept BCSP's Security and Confidentiality Agreement, you will be able to complete a brief tutorial to become familiar with the features of the examination delivery software and the online *Examination Reference* before beginning the examination. BCSP **strongly** recommends that you complete this tutorial. The time you spend on this tutorial does not count toward your actual testing time.

### *Examination Duration*

Once you finish the online tutorial, your examination clock will actually begin. You will have four hours to complete the OHST or CLCS examination. At the end of your examination (after you are shown your unofficial result), you will be asked to complete a post-examination survey.

Your time remaining will appear on the computer screen. **If you leave your computer testing workstation for any reason during the examination, your clock will continue to run.**

### ***Examination Format***

One item will appear on the screen at a time. You may answer the item, mark the item for later review, or skip the item completely. Even if you mark an item because you intend to review the item later, BCSP recommends that you select an answer anyway in case you run out of time and are unable to return to review the marked item.

After you have seen all of the examination items, you will be presented with a review screen that presents a list of all items and your responses. This list will also show whether you skipped any items or marked any for later review. You may easily return to any item on this table by simply clicking on the item using the computer mouse. Once you return to the item, you may change your answer selection, if desired, and return to the review screen.

The 2-page *Examination Reference* will be available for you on every item by clicking the button on your computer screen labeled “Exam Reference.”

### ***Examination Environment***

You may find that the examination room is too cool or too warm or that the computer testing workstation is not ergonomically designed for you. In addition, you may be distracted during an examination by noises such as mouse clicks and typing by other examinees in the room. BCSP does everything possible to help make your examination experience a positive one, and many of these distractions affect people differently. Therefore, you may want to plan for them. For example, you should consider wearing clothing that will allow you to remain comfortable in either a cool or warm environment, and consider having earplugs to block as much environmental noise as possible. You should contact the testing center staff if the environmental conditions in the secure testing room are unreasonable.

### ***Completing the Examination and Getting Your Result***

Once you have been shown your unofficial examination result, you will be asked to complete a post-examination survey. Please complete this survey to help BCSP understand your certification and testing experience and help us address any problems you encountered. After submitting your survey responses, you may leave your computer testing workstation and find a member of the testing center staff to check out.

During the check out procedure, you will have to return any materials given to you by the testing center staff. The testing center staff will then give you a printed copy of your unofficial examination result. Within three weeks, BCSP will mail your official result and score report to you.

### **Late Arrivals and Missed Appointments**

If you fail to keep your scheduled examination appointment, if you arrive more than 15 minutes beyond the starting time of your scheduled appointment, or if you fail to present acceptable identification to the testing center staff when you arrive for your scheduled appointment, you will be refused admission, and you will forfeit your examination authorization fee. To sit for the examination after having been refused admission, you must pay a new examination authorization fee, if you are still eligible.

### **Canceling and Rescheduling Examination Appointments**

If you need to cancel and reschedule an examination appointment, there must be one or more full business days remaining before the date of your scheduled appointment. Appointments **cannot** be canceled and rescheduled if there is less than one full business day before the date of your scheduled examination appointment. To reschedule an examination appointment, a Pearson VUE testing center must have an appointment time available within the remaining time in your examination authorization period. **For Candidates Testing in the U.S. or Canada Only:** If you have to cancel and reschedule your examination appointment toward the end of your 120-day examination authorization period, you should consider purchasing a one-time, 60-day examination authorization extension from BCSP. The 60-day examination authorization extension is not available for candidates testing outside the U.S. and Canada.

### **Examination Authorization Extensions (For Candidates Testing in the U.S. or Canada Only)**

After registering and paying for an examination authorization, you will have 120 days to take the examination. If you need to extend the 120-day examination authorization period, and you are testing in the U.S. or Canada, BCSP allows you to purchase a one-time, 60-day extension for a nonrefundable fee. If you are eligible for this one-time examination authorization extension, BCSP must receive and acknowledge your payment for the extension at least two full business days before the date your current 120-day examination authorization period expires.

**If you scheduled an appointment, you are still responsible for canceling that appointment and rescheduling it even if you purchased an examination authorization extension. If you fail to cancel and reschedule your current appointment, you will forfeit both your examination authorization and extension fees.**

### **Taking the OHST or CLCS Examination for Recertification Credit**

An OHST or CLCS in good standing may take and pass the OHST or CLCS examination during the last year of a Recertification cycle to fulfill all requirements for that cycle. To take advantage of this option, contact BCSP to pay for an OHST or CLCS examination authorization. If you pass the examination, your record will be automatically updated to reflect your compliance with all Recertification requirements for that cycle. NOTE: OHSTs and CLCSs must pass the OHST or CLCS examination **during** the last year of a recertification cycle to receive Recertification credit.

### **Retesting**

If you fail your examination, you may register and pay to retake the examination after you receive your official result and score report from BCSP. There is no limit to the number of times you can register for and retake the examination, as long as you remain eligible. You do not have to reapply for the OHST or CLCS credential after failing an examination unless your overall eligibility has expired. Eligibility time limit rules are summarized on page 11 of this publication.

### **Examinations for Candidates Requiring Special Accommodations**

If you require special examination facilities or arrangements because of one or more documented disabilities (consistent with the Americans with Disabilities Act), you must inform BCSP of these needs at the time you purchase an examination authorization. You will be asked to provide official medical documentation describing the nature of your disabilities, the precise special accommodation(s) recommended for you, and the name, address, phone number, and qualifications of the licensed healthcare professional validating your request. Pearson VUE can accommodate almost all requests for special accommodations. However, if special accommodations are not available through a Pearson VUE testing center, BCSP will make other arrangements to ensure that your needs are met.

**If, at the time you purchase your examination authorization, you fail to inform BCSP of your need for one or more special accommodations, you will not receive them when you arrive for your examination appointment. Your special accommodations will not be granted until BCSP receives and reviews your official medical documentation and approves your request.**

Once BCSP approves your request for special accommodations, BCSP will notify you and provide you with additional instructions describing how you will need to schedule your examination appointment. Note: Be prepared to send BCSP your medical documentation as soon as you purchase your examination authorization. Your 120-day examination authorization clock starts on the day you purchase your examination authorization even if you are requesting one or more special accommodations.

### **Examinations for Candidates Using External Assistive Devices**

If you routinely use (or expect use) external assistive devices or equipment such as crutches, a wheelchair, a cane, a low vision optical aid, or a hearing aid, you must inform BCSP of your need to use these external assistive devices in the secure testing room at the time you purchase an examination authorization. BCSP must inform Pearson VUE of your need to use one or more external assistive devices so the Pearson VUE testing center staff can be prepared to perform appropriate security inspections on these assistive devices when you arrive. If you fail to inform BCSP of your need to use one or more external assistive devices, you may not be permitted to use your assistive devices in the secure testing room.

### **Other Testing Arrangements**

If there is no Pearson VUE testing center near you and if you are not planning to travel to a city with a Pearson VUE testing center, BCSP can make special arrangements to deliver a BCSP examination by special administration (including for U.S. military personnel in DANTES facilities). Taking a BCSP examination by special administration is more expensive than taking a computer-delivered BCSP examination in a Pearson VUE testing center. If you believe that you will need a special examination administration, please contact BCSP five or more months prior to your desired examination date so we can research providing a special administration for you. Once we understand the special administration rules and procedures, BCSP will contact you to explain the special administration rules and procedures and to provide you with the specific examination authorization fee for your case.

## SUMMARY OF COMPUTER-DELIVERED EXAMINATION RULES (Testing Within the United States and Canada)

When making plans to take the OHST or CLCS examination in the United States, its territories, or Canada, consider the following rules for computer-delivered examinations. All fees are subject to change.

Once you register and pay for an examination authorization, you have 120 days from your registration date to schedule an appointment with Pearson VUE and take the BCSP examination. If you need additional time beyond 120 days, you may purchase a one-time, 60-day extension of your examination authorization. Therefore, a maximum of 180 days is available for you to take your examination after you register and pay for your examination authorization. No additional extensions to your examination authorization are permitted beyond the one-time, 60-day extension.

To schedule a new appointment or to cancel/reschedule an existing examination appointment, BCSP strongly recommends that you visit **www.pearsonvue.com/BCSP** and register online. You may also call the Pearson VUE North American registration center at 1-866-717-3653 (8:00 a.m. – 8:00 p.m. weekdays U.S. Eastern Time, closed on U.S. holidays). You **cannot** schedule a new appointment or cancel/reschedule an existing appointment directly with a local Pearson VUE testing center or directly with BCSP. When you make or change your appointment with Pearson VUE, have your Examination Authorization Letter available. After scheduling or rescheduling your examination appointment, confirm your appointment location, date, and time online at **www.pearsonvue.com/BCSP**.

There must be one or more full business days remaining prior to the date of your existing examination appointment for you to cancel/reschedule the appointment. Even if you properly cancel an existing examination appointment, to reschedule it, there must be a testing center with an available appointment during the time remaining in your examination authorization period.

If you have already made an examination appointment within the original 120-day examination authorization period, but you decide to purchase the one-time, 60-day extension to your examination authorization, you remain responsible for canceling and rescheduling your existing appointment.

You forfeit your examination authorization fee when you:

- Fail to take the examination during the 120-day examination authorization period and you did not purchase a one-time, 60-day examination authorization extension during the 120-day period; or
- Fail to take the examination during the 60-day extension of the 120-day examination authorization period even if you purchased the one-time, 60-day extension; or
- Fail to show up for any scheduled examination appointment (even if you purchased an extension); or
- Are more than 15 minutes late for any scheduled examination appointment; or
- Fail to present acceptable identification to the Pearson VUE staff; or
- Fail to follow BCSP's or Pearson VUE's security and administrative procedures at the testing center.

If you forfeit your examination authorization fee, you must register and pay for a new 120-day examination authorization to take the examination, if you are still eligible.

**SUMMARY OF COMPUTER-DELIVERED EXAMINATION RULES**  
**(Testing Outside the United States and Canada)**

When making plans to take the OHST or CLCS examination outside the United States or Canada, consider the following rules for computer-delivered examinations. All fees are subject to change.

Once you register and pay for an examination authorization, you have 120 days from your registration date to schedule an appointment with Pearson VUE and take the BCSP examination.

To schedule a new appointment or to cancel/reschedule an existing examination appointment, BCSP strongly recommends that you visit **www.pearsonvue.com/BCSP** and register online. You may also call the appropriate Pearson VUE regional registration center at one of the phone numbers shown below. You **cannot** schedule a new appointment or cancel/reschedule an existing appointment directly with a local Pearson VUE testing center or directly with BCSP. When you make or change your appointment with Pearson VUE, have your Examination Authorization Letter available. After scheduling or rescheduling your examination appointment, confirm your appointment location, date, and time online at **www.pearsonvue.com/BCSP**.

**Regional Registration Centers Outside the United States and Canada**

**Mexico, Central America, South America, Caribbean (Except U.S. Territories)**

1-952-681-3872; 8:00 a.m. – 8:00 p.m. weekdays U.S. Eastern Time (closed on U.S. holidays)

**Asia, Australia, New Zealand, Pacific Islands (Except U.S. Territories)**

61-2-9478-5400; 8:30 a.m. – 6:00 p.m. weekdays Australian Eastern Time (closed on Australian holidays)

**Europe, Middle East, Africa**

44-161-855-7455; 8:00 a.m. – 6:00 p.m. weekdays Central European Time (closed on UK holidays)

There must be one or more full business days remaining prior to the date of your existing examination appointment for you to cancel/reschedule the appointment. Even if you properly cancel an existing examination appointment, to reschedule it, there must be a testing center with an available appointment during the time remaining in your examination authorization period.

You forfeit your examination authorization fee when you:

- Fail to take the examination during the 120-day examination authorization period; or
- Fail to show up for any scheduled examination appointment; or
- Are more than 15 minutes late for any scheduled examination appointment; or
- Fail to present acceptable identification to the Pearson VUE staff; or
- Fail to follow BCSP's or Pearson VUE's security and administrative procedures at the testing center.

If you forfeit your examination authorization, you must register and pay for a new 120-day examination authorization to take the examination, if you are still eligible.

## BCSP Examination Reference

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The two pages shown in this section (the *BCSP Examination Reference*) are provided online to OHST and CLCS examination candidates during the actual examination. On every item, the *Examination Reference* will be available for viewing in the form shown in this section.

BCSP expects you to know simple formulas, mathematical functions, and similar information. In addition, BCSP expects you to have enough knowledge of a subject area to know what information in the *Examination Reference* is applicable to an item.



**TRIGONOMETRIC FUNCTIONS**

$\sin A = a/c$      $\cos A = b/c$      $\tan A = a/b$

$c^2 = a^2 + b^2 - 2ab \cos C$

$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$



**QUADRATIC EQUATION**

$x_1, x_2 = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

**GEOMETRIC FORMULAS**

- Circle    Sphere
- $C = \pi D$      $S = 4\pi r^2$
- $A = \pi r^2$      $V = (4/3) \pi r^3$

**STATISTICS AND PROBABILITY**

$s = \sqrt{\frac{\sum(x^2)}{N-1}}$      $(x = X - \bar{X})$      $\sigma = \sqrt{\frac{\sum(x^2)}{N}}$

$r = \frac{N\sum(XY) - (\sum X)(\sum Y)}{\sqrt{[N\sum(X^2) - (\sum X)^2][N\sum(Y^2) - (\sum Y)^2]}}$

$x = X - \bar{X}$   
 $y = Y - \bar{Y}$

$r = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}}$

**MECHANICS**

$F = \mu N$     P.E. = mgh

$F_1 D_1 = F_2 D_2$     P.E. =  $\frac{kx^2}{2}$

$v = v_0 + at$      $p = mv$

$v^2 = v_0^2 + 2as$      $F = ma$

$K.E. = \frac{mv^2}{2}$      $W = Fs$

**HEAT STRESS**

WBGT = 0.7 WB + 0.3 GT  
(Indoors; no solar heat load)

WBGT = 0.7 WB + 0.2 GT + 0.1 DB  
(Outdoors; with solar heat load)

**VENTILATION**

$Q = AV$      $V = 4005 \sqrt{VP}$

$V = 4005 C_c \sqrt{SP_h}$      $TP = SP + VP$

**NOISE**

$L_w = 10 \log_{10} \frac{W}{W_0}$      $L_p = 20 \log_{10} \frac{p}{p_0}$  dB

$T = \frac{8}{2^{[(L-90)/5]}}$

$dB_1 = dB_0 + 20 \log_{10} \left( \frac{d_0}{d_1} \right)$

$TWA = 16.61 \log_{10} \left[ \frac{D}{100} \right] + 90$

**ELECTRICITY**

$V = IR$      $P = VI$

$R_{series} = R_1 + R_2 + \dots + R_n$

$\frac{1}{R_{parallel}} = \frac{1}{R_1} + \frac{1}{R_2} + \dots + \frac{1}{R_n}$

**CONCENTRATIONS OF VAPORS AND GASES**

$ppm = \frac{mg / m^3 \times 24.45}{MW}$

$TLV_m = \frac{1}{\left( \frac{f_1}{TLV_1} + \frac{f_2}{TLV_2} + \dots + \frac{f_n}{TLV_n} \right)}$

**GAS LAWS**

$PV = nRT$

$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$

**RADIATION**

$I_2 = I_1 \left( \frac{d_1}{d_2} \right)^2$

$S \approx 6CE$





**BCSP**

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 Champaign, Illinois 61821  
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 Email: bcsp@bcsp.org Web: www.bcsp.org

# OHST/CLCS APPLICATION FORM

- Occupational Health and Safety Technologist®**  
 **Certified Loss Control Specialist**

BCSP Use Only
Fees Pd _____
Co. Check _____
Pers. Check _____
Accept for Rev. _____
Review Team No. _____

Type or print legibly. See the *OHST/CLCS Candidate Handbook* for instructions on completing this form. View and print additional copies at [www.bcsp.org/ohst\\_clcs](http://www.bcsp.org/ohst_clcs).

**APPLICANT PERSONAL DATA**

NAME <input type="checkbox"/> Mr. <input type="checkbox"/> Ms. _____ <div style="display: flex; justify-content: space-between; font-size: small; margin-top: 5px;"> <span>First</span> <span>MI</span> <span>Last/Family</span> <span>Maiden Name (if applicable)</span> <span>Other Legal Name (if applicable)</span> </div>				
HOME ADDRESS _____ <div style="display: flex; justify-content: space-between; font-size: small; margin-top: 5px;"> <span>Street Address</span> <span>Apartment</span> <span>Box Number</span> </div> _____ <div style="display: flex; justify-content: space-between; font-size: small; margin-top: 5px;"> <span>City</span> <span>State/Province</span> </div> _____ <div style="display: flex; justify-content: space-between; font-size: small; margin-top: 5px;"> <span>Zip/Postal Code</span> <span>Country</span> </div>			SOCIAL SECURITY NUMBER _____ DATE OF BIRTH (MM/DD/YY) _____ NAICS CODE (See Table 2) 1. _____ 2. _____	
PHONE NUMBERS <i>(If outside the U.S. or Canada, include country and city codes)</i>	HOME PHONE (Area Code & Number)	WORK PHONE (Area Code & Number)	FAX (Area Code & Number)	
MOBILE (Area Code & Number)		EMAIL ADDRESS(ES)		

**COLLEGE EDUCATION**

(If you are seeking degree or college credit toward certification, you must enclose an official transcript.)

COLLEGE OR UNIVERSITY OR CERTIFICATE PROVIDER <i>(Name, City, State)</i>	DATES ATTENDED		NUMBER OF ACADEMIC YEARS COMPLETED <i>(For Degrees)</i>	COURSE OF STUDY OR MAJOR OR CERTIFICATE TITLE	DEGREE EARNED	TRANSCRIPT OR CERTIFICATE <i>(Check One)</i>
	FROM <i>(MM/YY)</i>	TO <i>(MM/YY)</i>				
						<input type="checkbox"/> Enclosed <input type="checkbox"/> School Sending <input type="checkbox"/> Certificate Copy Enclosed
						<input type="checkbox"/> Enclosed <input type="checkbox"/> School Sending <input type="checkbox"/> Certificate Copy Enclosed

**SUMMARY OF HEALTH AND SAFETY EXPERIENCE**

(You **must** complete an OHST/CLCS Experience Form for each position listed on your application in order to receive credit.)

POSITION <i>(List your most recent position first)</i>	EMPLOYER	START DATE <i>(MM/YY)</i>	END DATE <i>(MM/YY)</i>	MONTHS IN POSITION
<i>For Office Use Only</i> Date Eligible for OHST/CLCS Examination: _____	<i>For Office Use Only</i> Date Eligible for OHST/CLCS Certification: _____			



**BCSP**

2301 W. Bradley Avenue , Champaign, Illinois 61821

Phone: +1 217-359-9263 Fax: +1 217-359-0055

Email: [bcsp@bcsp.org](mailto:bcsp@bcsp.org) Web: [www.bcsp.org](http://www.bcsp.org)**Occupational Health and Safety Technologist®/****Certified Loss Control Specialist****EXPERIENCE FORM**

Please type or print. Provide all information requested. Make copies as needed. See *OHST/CLCS Candidate Handbook* for instructions. Additional copies can be downloaded from the web site at [www.bcsp.org](http://www.bcsp.org).

**APPLICANT**

Applicant's Name				
	Last/FamilyMaiden Name (if applicable)	Other Legal Name (if applicable)	First	MI

**POSITION**

Position Title			
Position Type <input type="checkbox"/> Full-time (at least 30 hrs/wk) <input type="checkbox"/> Part-time (less than 30 hrs/wk)	Portion of Position Time Involving Health and Safety Work <input type="checkbox"/> 70-100% <input type="checkbox"/> 35-70% <input type="checkbox"/> Less than 35%	TIME EMPLOYED IN POSITION From (MM/YY)	TIME EMPLOYED IN POSITION To (MM/YY)
Briefly Describe Four Primary Duties of this Position  1.          2.          3.          4.			

**EMPLOYER DATA FOR THIS POSITION**

Employer's Name and Address	Supervisor's Name
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**Occupational Health and Safety Technologist®/****Certified Loss Control Specialist****REFERENCE FORM**

Please type or print. Make copies as needed. Return this form to the applicant. Additional copies may be downloaded at [www.bcsp.org/ohst\\_clcs](http://www.bcsp.org/ohst_clcs).

**APPLICANT**

Applicant's Name	_____			
	Last/Family/Maiden Name (if applicable)	Other Legal Name (if applicable)	First	MI

**REFERENCE INFORMATION**

Reference Name _____	Current Certifications ( <i>check all that apply</i> ) <input type="checkbox"/> CSP Certificate Number _____ <input type="checkbox"/> CIH Certificate Number _____ <input type="checkbox"/> OHST or CLCS Certificate Number _____ <input type="checkbox"/> CHST Certificate Number _____ <input type="checkbox"/> Other _____ Certificate Number _____
Reference Position/Title _____	Phone (Area Code) (Number) _____
Company _____	
Address _____ Email _____	
City _____ State/Province _____ Zip Code/Postal Code _____ Country _____	
Reference Signature _____	Date _____

**BASIS FOR COMMENTS**

Period Reference Has Known Applicant (give approximate dates)	FROM (MM/YY)	TO (MM/YY)	Is the reference a relative of this applicant? <input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Nature of Reference's Relationship with Applicant <input type="checkbox"/> Supervisor <input type="checkbox"/> Past Supervisor <input type="checkbox"/> Co-worker <input type="checkbox"/> Employee <input type="checkbox"/> Friend <input type="checkbox"/> Professor for Degree Program <input type="checkbox"/> Other _____		Briefly Describe the Relationship	

**VALIDATION OF APPLICANT'S EXPERIENCE AND MORAL CHARACTER**

Is/was this position full-time? (30 hrs/wk or more) <input type="checkbox"/> Yes <input type="checkbox"/> No	Briefly Describe the Overall Duties and Responsibilities of this Position
What portion of this position involved occupational health and safety activities or duties? _____%	
Describe the Applicant's Ability to Carry out Occupational Health and Safety Activities	
For professors of student applicants: When will the student graduate from your degree program? (MM/YY) _____	
Reference's Comments about the Applicant and his/her Qualifications for the OHST or CLCS Certification	





**BCSP** | **Board of Certified  
Safety Professionals**

Advancing the Safety, Health and Environmental  
Professional Since 1969

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