
CERTIFIED BUILDING ENCLOSURE COMMISSIONING PROVIDER

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Study Guide for the
Certified Building Enclosure Commissioning Provider (CBECxP®) Exam
Prepared By
IIBEC Building Enclosure Commissioning Certification Council (BECxCC)



APPLICATION FOR

Certified Building Enclosure Commissioning Provider (CBECxP®)

Dear CBECxP Applicant:

To become a Certified Building Enclosure Commissioning Provider (CBECxP®), an applicant must meet specific requirements. These requirements include verifiable levels of work experience and education, high ethical standards, and a satisfactory score on the CBECxP examination.

The CBECxP exam must be passed to earn the certification. Candidates who do not pass an exam will have the option to retry every four months. Approval of the CBECxP application will qualify the applicant to take the exam. A study outline for the CBECxP exam is provided.

All applicants are encouraged to use the online interactive process to complete this application. **Once the application has been submitted to IIBEC, all required information must be provided within one year or the application will expire.**

The application fee is \$425. Please allow 90 days for application processing. Applications will be processed within 45 days for an additional expediting fee (\$125) provided all requirements are satisfied.

The fee for each computer-based exam is \$325. Once registered, the candidate will be contacted by Scantron to schedule an exam at one of the 1,000 conveniently located testing centers. Consult <https://www.scantron.com/test-site-cities/> for testing center locations.

IIBEC is focused on advancing the building enclosure commissioning profession and we look forward to receiving your application.

Sincerely,



Alec Jeffries
Senior Director of Membership & Registrations

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DISCLAIMER

The International Institute of Building Enclosure Consultants (IIBEC) has and will continue to make all the latest versions of all documents pertinent to the certification scheme posted on the IIBEC website (iibec.org). The document posted at any point in time will be considered the official version at that time. It is the individual's responsibility to check the IIBEC website at the time when they are considering certification or completing any documents.

This Handbook contains information on how to become a Certified Building Enclosure Commissioning Provider (CBECxP). Information in this Handbook represents current policies for the IIBEC CBECxP program. Information in this Handbook supersedes information contained in any previously published documents.

Any written material or guidance provided by the written documents is made available to persons on an "as is" basis without any warranties of any kind provided whether expressed or implied. IIBEC, its officers, directors, agents, authorized representatives and affiliates specifically disclaim and deny, to the fullest extent by law, any and all liability and/or responsibility for any claims, actions, liabilities, losses, damages, expenses or injuries of any kind or nature, (including without limitation, direct, indirect, incidental, consequential, special, exemplary or lost profits) arising directly or indirectly out of or resulting from the use of or reliance upon such documents or information provided by this Handbook or the certification scheme in general or specifically.

This booklet may not be brought into the certification examination room or used in a remote session.

Eligibility standards, exam content, exam standards, fees, and guidelines are subject to change.

CONFLICT RESOLUTION

Reference: ISO 17024 Standard 9.9

Complaints or disputes regarding actions of IIBEC outside of the scope of the Reconsideration of Eligibility Determinations, Reconsideration of Recertification Determinations, and Certificant Complaints & Disciplinary Actions policies may be submitted to IIBEC for consideration.

Complaints must be submitted in writing, via email, to the IIBEC Sr. Dir. of Membership and Registrations. The IIBEC BECx Committee will review and respond to the complaint within 30 days of submission. The complainant shall then have thirty (30) days to reply to the Committee's response and submit additional information supportive of their complaint. The Committee shall then have thirty (30) days to respond to the complaint with additional information being submitted.

Any determination made by the IIBEC BECx Committee is final.

This policy is public information and will be published on the IIBEC web site.

APPLICATION FOR CERTIFIED BUILDING ENCLOSURE COMMISSIONING PROVIDER

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INSTRUCTIONS & OVERVIEW
CERTIFIED BUILDING ENCLOSURE COMMISSIONING PROVIDER

General Requirements

- A.** The successful CBECxP candidate must accomplish the following:
1. Meet certain minimum requirements regarding education, personal work experience, character, and ethics.
 2. Have the knowledge and skills to serve as the technical and administrative director of the building enclosure commissioning process, beginning with the documentation of the Owners Project Requirements (OPR) during pre-design and extending through the design, bidding and negotiating, construction, and occupancy and operations phases of the project.
 3. Take and pass the CBECxP exam.
 4. Sign and agree to the IIBEC Code of Ethics.
- B.** The applicant shall satisfy that the following minimum requirements have been attained:
1. The applicant has at least four years of building enclosure commissioning experience (as defined by the personal work experience chart on page III) and has attained a minimum of 100 points for education, professional registration and/or work experience.
 2. The applicant has secured a minimum of 70 hours of continuing education through attendance at a minimum of three seminars directly related to building commissioning, building enclosure consulting, or building construction sciences that award educational units. To be acceptable, Continuing Educational Hours (CEHs) can be no older than 10 years. There is a maximum of 16 hours accepted per program.
 3. The applicant shall have a strong moral and ethical character demonstrated by his/her references, experience, and professionalism. The “Standards of Ethical Practice” for IIBEC are included in this application. They outline the obligations of building enclosure commissioning professionals to the public, the client, the employer, the profession, and the building industry. Conformity to IIBEC’s Code of Ethics is expected of all certification holders.
 4. The applicant shall always be objective, unbiased, and impartial in actions relating to building enclosure commissioning.
 5. The applicant shall never have a conflict of interest or permit him/her to be placed in a position that would allow for a potential conflict of interest. Conflict of interest shall be defined as any activity or employment in which the applicant has any significant financial benefit or other interest, or acceptance of any contribution or benefit that could reasonably appear that such activity, employment, interest, or contribution could compromise the individual’s professional judgment or prevent the individual from serving in the best interest of the client or employer.
 6. The CBECxP designation, once attained, must be renewed every year. Renewal requirements include paying a renewal fee and providing information regarding continuing educational hours in accordance with the certification renewal procedures established by IIBEC and in compliance with ANSI/ISO/IEC 17024 accreditation standards for Personnel Certification Bodies.
- C.** Documentation is required regarding an applicant’s experience, education, professional registration,

training, etc. An applicant's education and/or work experience is evaluated through a point system. A minimum of 100 points is required and may be obtained in one of the following ways: experience only; experience and education; experience, education, and professional registration.

EXPERIENCE IS MANDATORY FOR CERTIFICATION – EDUCATION ALONE WILL NOT SUFFICE.

A Certified Building Enclosure Commissioning Provider is an individual who will have direct advisory contact with owners, design professionals, contractors, installers, inspectors/auditors, or any other person who is looking for guidance on building enclosure design and construction.

The following assignment of points shall be implemented:

Education – High school education or equivalent is required. Ten points shall be awarded per year of successful completion of industry-related* college education. Eight points shall be awarded per year of successful completion of general college education. A maximum of 30 points may be received if a degree is not earned. A diploma or an official transcript must be furnished for all educational points submitted.

The following maximum number of points shall apply for education:

Associate Degree	= 20 points (industry-related*)	16 points (general)
Four-year curriculum	= 40 points (industry-related*)	32 points (general)
Five-year curriculum	= 50 points (industry-related*)	40 points (general)
Master's degree	= 10 points (industry-related*)	8 points (general)
Doctorate	= 10 points (industry-related*)	8 points (general)

The maximum number of points for education is 50 points.

*Architecture, engineering, construction, chemistry, building science, or building technology

Licensed Professional - 20 points shall be awarded to licensed architects (RA) and licensed professional engineers (PE). Persons with dual (RA and PE) or multiple (2 RAs or 2 PEs) licenses shall receive a maximum of 20 points. (include copy of license with expiration date).

Other Professional Credentials - Points are awarded for other certifications and designations: BECxP, Cx+BE, BCxP, CCP, CxA, IIBEC professional credentials, BSSO, OBEC, CxA, CET, LEED AP BD+C, CDT, CCCA, CCS, CIT, CABS.

Personal Work Experience - One point shall be awarded per project or task in the following categories of experience related to building enclosure commissioning:

Category Service Rendered or Task Performed****Maximum No. of points**

1	Building Enclosure Surveys or Audits	25
2	Preparation or Independent Design Review of Contract Documents (Drawings, Specs, etc)	35
3	Develop and Execute a Building Enclosure Commissioning Plan/Program	25
4	Building Enclosure Commissioning Observation/Quality Assurance	30
5	Building Enclosure Forensic Investigations, Depositions, Expert Testimony	35
6	Building Enclosure Moisture Investigations (Infrared, Nuclear, and/or Capacitance)	30
7	Building Enclosure Testing: Physical/Quantitative Analyses	30
8	Research Directly Related to the Building Enclosure	30
9	Publications Related to Building Enclosure Commissioning (Articles, Books, Theses)	15
10	Lectures Presented Related to Building Enclosure Commissioning (Emphasizing Education)	15
11	Act as the Building Enclosure Commissioning Provider	50
12	Professional Association Active Participation (IIBEC, CSI, ASTM, etc.)	10
13	Participation in the Building Enclosure Commissioning Process	25

** The above items refer to services rendered or tasks performed by the applicant, not by someone under the applicant's direction. The applicant's experience as a building enclosure commissioning provider is being evaluated, not the management ability of the applicant or the experience of the employer or subordinates. See Supplemental Sheet A for additional information regarding these items.

Building enclosure commissioning providers shall have a relatively broad base of experience. Applicant must earn points from experience in a minimum of three categories. To ensure that all applicants have well-rounded experience, each category is restricted in the number of points allowed. Points may be earned from more than one category for a single project. For example, if the applicant performed a building enclosure survey and an infrared moisture survey, supplemented with a nuclear gauge, gave deposition for litigation, and wrote a building enclosure commissioning article which was published in a magazine for a single project, four points could be earned - one each for categories 1, 6, 7 and 10.

Projects with multiple buildings or locations with identical construction and service(s) rendered shall receive a maximum of five points per category, regardless of the number of buildings involved. If separate reports, specifications, etc. are provided for individual buildings on a "stand-alone" project basis, each project can qualify for points.

Examples of computation of points:

Example 1: A person with one year of college (10 points, industry-related) would require 90 points through experience (90 projects that qualify for one point each or other combination thereof).

Example 2: A licensed professional engineer (20 points) with a four-year degree (40 points, industry related) would require 40 points through experience (40 projects that qualify for one point each or other combination thereof).

Example 3: A person with a four-year degree (40 points, industry-related) and a one-year master's degree (10 points, industry-related) would require 50 points through experience (50 projects that qualify for one point each or other combination thereof).

The "Project Register" forms are to be completed for each project an applicant claims for experience points. The applicant may attach additional copies as needed. Check multiple categories if applicable.

This application is intended for completion by honorable professionals. Each application will be reviewed and evaluated. References will be checked as well. False or misleading information will result in severe penalties, including denial of application.

Make a copy of the completed application for personal records before sending it to IIBEC.

* * * *

APPLICANT PLEASE NOTE: Members and registrants of IIBEC should also recognize that their profession and their practice may be governed by various laws and regulations regarding professional registration and the conduct of trade. It is their responsibility, therefore, to be familiar with those laws and regulations and to conduct themselves accordingly. IIBEC currently has no state jurisdiction or governmental certification sanction.

**APPLICATION FOR
CERTIFIED BUILDING ENCLOSURE COMMISSIONING PROVIDER**



International Institute of Building Enclosure Consultants
434 Fayetteville St., Suite 2400
Raleigh, NC 27601
(800) 828-1902 or (919) 859-0742
Fax (919) 859-1328

Date _____

Type or Print Legibly Using Black Ink Pen

SECTION 1: PROFILE INFORMATION					
Full Name	Last	First	Middle	Nickname	
Home Address	Number and Street	Apt.	Box	Road/Rural Route	
	City	Country	State	Zip	E-mail
Have you ever applied for IIBEC CBECxP classification before? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please give date of application:					
Are you a Licensed Architect? <input type="checkbox"/> Yes <input type="checkbox"/> No Date of first registration: State: #: Other States:					
Are you a Licensed Professional Engineer? <input type="checkbox"/> Yes <input type="checkbox"/> No Date of first registration: State: #: Other States:					
Are you a Contractor or employed by one? <input type="checkbox"/> Yes <input type="checkbox"/> No Type: <input type="checkbox"/> General <input type="checkbox"/> Specialty State and license number for each:					
Are you employed by or do you own a company that manufactures, distributes, or sells building products or materials? <input type="checkbox"/> Yes <input type="checkbox"/> No Identify:					
What percent of your principal income do you derive from building enclosure commissioning? %					
Do you have any conflict of interest (see page I, paragraph B-5 for definition), or do you work for, own, or have interest in any company having such conflicts? <input type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION 2: BUSINESS INFORMATION					
Employer Business Type: <input type="checkbox"/> Other <input type="checkbox"/> Consulting <input type="checkbox"/> Architectural <input type="checkbox"/> Engineering <input type="checkbox"/> Contractor <input type="checkbox"/> Manufacturer <input type="checkbox"/> Distributor					
Name of business:					
Business street address: City: State: Zip: Phone & Fax:					
Organization: <input type="checkbox"/> Individual <input type="checkbox"/> Individual Proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation <input type="checkbox"/> Other [please specify]:					

Name _____

Date _____

SECTION 3: EDUCATION

State in chronological order the name and location of each high or preparatory school, college, university or technical school attended (high school diploma is not required with ten or more college coursework units). A CERTIFIED COPY OF THE TRANSCRIPT(S) should be forwarded directly from the institution to IIBEC. A copy of the diploma is also acceptable. For incomplete college or university work, indicate the number of semesters completed. Attach additional sheets as required.

CIRCLE LAST YEAR COMPLETED: Grade School: 1 2 3 4 5 6 7 8 High School: 9 10 11 12 College: 1 2 3 4 5 6 7 8

Type of School ¹	Name and Address of Institution	Dates Attended Mo/Yr to Mo/Yr	Did you Graduate?	Semesters Completed	Major	Degree

Record Educational Points on Attachment Sheet 3

¹ Could be a high school, preparatory school, junior college, college, university or technical school attended

SECTION 4: PROFESSIONAL EMPLOYMENT HISTORY

On Attachment Sheet 1, provide information regarding your personal work history, background, and experience directly related to building enclosure commissioning. Do not include employment in non-related fields.

SECTION 5: PERSONAL WORK EXPERIENCE

On Attachment Sheet 2 (“Project Register”) list projects for which personal work experience is claimed. A minimum of ten projects from three separate service categories must include a project contact and telephone number. Additional project/project contact information may be requested during the application approval process. The categories listed below refer to services rendered or tasks performed by the applicant, not by someone under the direction of the applicant. The experience of the applicant as a building enclosure commissioning professional is being evaluated, not the applicant’s management ability or the experience of the applicant’s employer or subordinates. See Supplement Sheet A for additional information regarding the categories listed below.

One point shall be awarded per project or task in the following categories of experience related to building enclosure commissioning. Points must be earned in a minimum of three categories.

Category	Service Rendered or Task Performed	Maximum Number of Points
1	Building Enclosure Surveys or Audits	25
2	Preparation or Independent Design Review of Contract Documents (Drawings, Specs, etc)	35
3	Develop and Execute a Building Enclosure Commissioning Plan/Program	25
4	Building Enclosure Commissioning Observation/Quality Assurance	30
5	Building Enclosure Forensic Investigations, Depositions, Expert Testimony	35
6	Building Enclosure Moisture Investigations (Infrared, Nuclear, and/or Capacitance)	30
7	Building Enclosure Testing: Physical/Quantitative Analyses	30
8	Research Directly Related to the Building Enclosure	30
9	Publications Related to Building Enclosure Commissioning (Articles, Books, Theses)	15
10	Lectures Presented Related to Building Enclosure Commissioning (Emphasizing Education)	15
11	Act as the Building Enclosure Commissioning Provider	50
12	Professional Association Active Participation (IIBEC, CSI, ASTM, etc.)	10
13	Participation in the Building Enclosure Commissioning Process	25

On Attachment Sheet 3, summarize your personal work experience, education, and professional registration. A minimum of 100 points is required for application approval.

SECTION 6: CONTINUING EDUCATION HOURS EARNED

On Attachment Sheet 4, provide information regarding your receipt of continuing education hours through your attendance at programs directly related to the industry. Attendance at a minimum of three building enclosure and/or commissioning related programs is required and documentation of such attendance must be provided. Programs must be technical in nature (not sales or product oriented). Online programs meeting these requirements are acceptable. Documentation should be in the form of a certificate or letter from the sponsoring organization stating the name of the course, date course was held, and number of hours awarded. A minimum of 70 credit hours is required. Continuing Education Hours (CEHs) can be no older than 10 years.

SECTION 7: REFERENCES

On Attachment Sheet 5, provide names and addresses of five references. **Three** references must know the applicant professionally and be a Licensed Architect, Licensed Professional Engineer, Building Owner, Commissioning Expert, Registered Roof Consultant, Registered Exterior Wall Consultant, Registered Waterproofing Consultant, and/or Registered Building Enclosure Consultant. References may **not** be related. In addition, **only one** reference may be from a current employer or fellow employee. **Each reference listed must have direct personal knowledge of the applicant's character, ethics and professional competence.** Return the summary sheet to IIBEC. **Make five copies** of Attachment Sheet 6 and complete the top portion of the Reference Form for each reference listed. Please send these forms to the individuals selected. Forms should be returned directly to IIBEC from the references.

SECTION 8: STANDARDS OF ETHICAL PRACTICE

The "Standards of Ethical Practice" for IIBEC outline the obligations of the building enclosure commissioning provider to the public, the client, the employer, the profession, and the building industry. The CBECxP must promote and conform to these Standards.

SECTION 9: AFFIDAVIT REGISTRATION, AUTHORIZATION AND RELEASE

Please complete Attachment Sheet 8 in the presence of a Notary and submit to IIBEC with the application.

SECTION 4: PROFESSIONAL EMPLOYMENT HISTORY

Name _____

Date _____

New

Update

Continuation Sheet

List in chronological order, beginning with the first employer, applicant’s work history directly related to building enclosure commissioning. Do not include employment in non-related fields or employment. Add additional sheets as necessary.

DATE		(1) Company Name (2) Address (3) City, State, Zip (4) Title/Position	Description of Experience (Briefly in space provided)
From	To*		
		(1) (2) (3) (4)	
		(1) (2) (3) (4)	
		(1) (2) (3) (4)	
		(1) (2) (3) (4)	

*Type “Present” in this column to indicate current employer.

SECTION 5: PERSONAL WORK EXPERIENCE**Description of Service Categories****1. Building Enclosure Surveys or Audits**

This category applies to the scope of work in which an individual performs a visual building enclosure condition assessment. The assessment would be performed in general accordance with the recommended procedures of IIBEC, ASTM, and/or other organizations in which the as-built condition of the building enclosure is observed, identified and documented as compared with the construction documents and owner's project requirements. Reporting could be through a standard checklist format or through a narrative-type report. The report may include, but is not required to include, photographs and/or video documentation. A drawing will generally be prepared to present the layout of the building enclosure penetrations and findings.

2. Preparation or Independent Design Review of Contract Documents (Drawings, Specs, etc)

This category may include the preparation of a complete set of contract documents—including the bidding documents, general conditions, technical specifications, commissioning plans, sections and details—as they relate specifically to the building enclosure. On some projects, however, only the technical specification must be prepared by the individual for implementation within another design professional's contract documents. The contract documents, in any event, would be complete. Independent design review of construction documents, specifically related to building enclosure materials and systems, is acceptable.

3. Develop and Execute a Building Enclosure Commissioning Plan/Program

This category includes projects in which the applicant was directly in a position of management or supervision. Merely being on a project site, does not constitute the kind of experience for which this service was intended. Persons receiving points for this category must have been in a position of responsible authority and management control. The same criteria regarding multiple building locations, etc., pertinent to other categories apply here as well.

4. Building Enclosure Commissioning Observation/Quality Assurance

This category includes observations performed by the applicant during construction for the assurance of the quality of another's work. In most cases, the person who performs these services would be under the direction or control of a superior, preferably a Building Enclosure Commissioning Provider or Building Enclosure Commissioning Specialist. In some cases, the individual may provide these services directly. Written documentation is required for this scope of work in the form of narrative reports or checklist reports. The applicant should be aware that points can't be earned by an individual supervising a technician performing these services. Points earned in this category must be the direct on-site experience of the applicant.

5. Building Enclosure Forensic Investigations, Depositions, Expert Testimony

This category includes forensic investigation that may include site observations, field tests, laboratory tests and analysis, video and photographic documentation, and other procedures implemented in a standard investigation of a project that may go to litigation. The project may or may not include depositions, and may or may not include expert testimony. Only one point may be claimed for each legal case for this category; multiple points are not allowed where both deposition and court testimony are provided. Experience in this category is applicable even if the case does not go to trial.

6. Building Enclosure Moisture Investigations (Infrared, Nuclear, and/or Capacitance)

This category includes conducting of non-destructive testing (such as an infrared, nuclear, and/or capacitance survey) of various characteristics of the building envelope related to moisture, air-tightness, thermal performance, or others. Multiple points are not awarded for each individual project even if all techniques are utilized unless each technique is reported completely independent of other techniques, e.g., separate survey reports are issued.

One point is awarded for each project on which a characteristic is investigation is performed. For example, building enclosure moisture surveys may be supplemented with destructive testing to confirm the nondestructive test.

Investigations shall be presented in a written report including information regarding the procedures utilized, the findings, and conclusions from the observations. Recommendations may be presented but are not mandatory. A drawing generally accompanies the report. Photographic and video documentation may or may not be presented, depending upon the project. One point shall be awarded for each project, even though several

buildings may be involved in the project. For example, on a building with several investigations for air tightness, condensation, and thermal breaks or bridges, only one points shall be awarded if a single report is presented. If separate reports are presented for separate buildings or different services and these are stand-alone reports, then multiple points may be claimed.

7. Building Enclosure Testing: Physical/Quantitative Analyses

This category refers to ASTM testing for physical, qualitative, and/or quantitative analysis of building enclosure materials and systems. This could include hygrothermal analysis, test cut analysis, whole-building air tightness testing, material testing, forensic testing, energy modeling, and other procedures utilizing scientific methods and procedures.

8. Research Directly Related to the Building Enclosure

This category would generally relate to research performed during building commissioning projects in which new technology is developed or utilized. Research referred to herein does not refer to procedures customarily implemented or used by commissioning professionals. This relates or refers to new innovative thinking. Written documentation must accompany this research to be valid, and it must be substantiated by a second party.

9. Publications Related to Building Enclosure Commissioning (Articles, Books, Theses)

This category includes articles, books, theses, etc. related to building enclosure commissioning that have been published-not those in revision or in draft form. The publishing may not be an in-house or interagency-type publication. These publications also shall not be solely directed to marketing or the promotion of one's experience or ability. The intention of the publications earning credit in this item must have a fundamental basis that is educational or newsworthy.

10. Lectures Presented Related to Building Enclosure Commissioning (Emphasizing Education)

This category includes lectures that emphasize the educational or technical nature of the presentation. Credit shall not be awarded to lectures in which the primary purpose of the presentation was to promote one's company or abilities. That is not to say that a marketing lecture cannot present educational information, but the primary purpose must not be to only promote one's company or self.

11. Act as the Building Enclosure Commissioning Provider or Building Enclosure Commissioning Specialist

This category applies to the administration of building enclosure commissioning and may include some or all of the following duties: documenting the owners project requirements (OPR); drafting and communicating the commissioning requirements for inclusion in agreements; developing the commissioning plan; assigning responsibilities to the BEC team; reviewing the basis of design, technical, and commissioning plan requirements at schematic design, design development, and construction document stages; reviewing construction documents and submittals; conducting or authorizing field reviews and mock-ups; performing construction observations and site visits; updating OPRs and commissioning plans; attending pre-construction sub-contractor meetings; conducting BEC team meetings; documenting requirements for substantial completion.

12. Professional Association Active Participation (IIBEC, CSI, ASTM, etc.)

This category includes active two-year participation in professional associations such as IIBEC, NRCA, SWRI, CSI, ASTM, ASCE, AIA, etc. Active participation is mandatory; merely being a card-carrying member is not sufficient. One point is awarded per association.

13. Participation in the Building Enclosure Commissioning Process

This category applies to the participation of various stakeholders in a building commissioning project and to those who are not in the role of Building Enclosure Commissioning Provider nor Building Enclosure Commissioning Specialist. The applicant is responsible for implementing a portion of the building commissioning. In most cases, the individual would likely be in the role of the owner, architect, design sub-consultant, construction manager, general contractor, subcontractor, or manufacturer. Individuals would be considered part of the Building Enclosure Commissioning Team and participants in the building enclosure commissioning process.

Name _____ Date _____

SECTION 5: PERSONAL WORK EXPERIENCE

(Check multiple categories per project, if applicable – see pages 6 and 7 for descriptions.)

PROJECT REGISTER*		1	2	3	4	5	6	7	8	9	10	11	12	13
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____													
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____													
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____													
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____													
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____													
Total for Each Column:														

A minimum of ten projects from three separate service categories *must include* a project contact and telephone number. **Include month(s) and year(s) of each project (include on both sheets). Additional projects and/or contact information may be requested. Duplicate sheet as needed.

Name _____ Date _____

SECTION 5: PERSONAL WORK EXPERIENCE

(Check multiple categories per project, if applicable – see pages 6 and 7 for descriptions.)

PROJECT REGISTER*		1	2	3	4	5	6	7	8	9	10	11	12	13
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____													
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#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____													
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____													
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____													
Total for Each Column:														

A minimum of ten projects from three separate service categories *must include* a project contact and telephone number. ****Include month(s) and year(s) of each project (Include on both sheets). Additional contact information may be requested. Duplicate sheet as needed.**

NAME: _____ DATE: _____

SUMMARY OF POINTS

SECTION 5: PERSONAL WORK EXPERIENCE					
Category	Services Rendered or Task Performed	Max. # of points	Points/Project	Number of Projects	Total Points
1.	Building Enclosure Surveys or Audits	25	1		
2.	Preparation or Independent Design Review of Contract Documents (Drawings, Specs, etc.)	35	1		
3.	Develop & Execute a Building Enclosure Commissioning Plan/Program	25	1		
4.	Building Enclosure Commissioning Observation/Quality Assurance	30	1		
5.	Building Enclosure Forensic Investigations, Depositions, Expert Testimony	35	1		
6.	Building Enclosure Moisture Investigations (Infrared, Nuclear, Capacitance)	30	1		
7.	Building Enclosure Testing: Physical/Quantitative Analyses	30	1		
8.	Research Directly Related to the Building Enclosure	30	1		
9.	Publications Related to Building Enclosure Commissioning (Articles, Books, Theses)	15	1		
10.	Lectures Presented Related to Building Enclosure Commissioning (Emphasizing Education)	15	1		
11.	Act as the Building Enclosure Commissioning Provider	50	1		
12.	Professional Association Active Participation (IBEC, CSI, ASTM, etc.)	10	1		
13.	Participation in the Building Enclosure Commissioning Process	25	1		
Total Number of Points Claimed for Personal Work Experience (Max = 100)					

SECTION 3: EDUCATIONAL POINTS

Two-Year Curriculum (Industry/General)	20/16	10/8/Yr.		
Four-Year Curriculum (Industry/General)	40/32	10/8/Yr.		
Five-Year Curriculum (Industry/General)	50/40	10/8/Yr.		
Master's Degree (Industry/General)	10/8			
Doctorate (Industry/General)	10/8			
Total Number of Points Claimed for Education (Max. 50)				

PROFESSIONAL CREDENTIALS POINTS

Licensed Architect*	20	20		
Licensed Professional Engineer*	20	20		
Registered Roof Consultant	10	10		
Registered Waterproofing Consultant	10	10		
Registered Exterior Wall Consultant	10	10		
Registered Roof Observer	5	5		
Registered Exterior Wall Observer	5	5		
Other* (see appendix of eligible programs)	5	5		
Total Number of Points Claimed for Credentials (Max. 20)				
GRAND TOTAL NUMBER OF POINTS CLAIMED				

NOTES:

1. Applicant must have points in a minimum of three categories.
2. A project register must be completed for each project. Some may include more than one service category.
3. A minimum of ten projects from three separate service categories must include a contact and phone number.
4. Refer to Page VII for point limitations placed on multiple building projects.
5. Maximum number of points for education is 50.
6. Official transcript or diploma must accompany application to substantiate all education points.
7. Maximum number of points for professional registration is 20.
8. *Provide Copy of current license or registration certificate, which indicates current expiration date.
9. Current license or registration must be recognized by a government agency or jurisdiction and require a minimum of a two-year industry-related degree from an accredited institution, and successful completion of an examination.

SECTION 6: CONTINUING EDUCATION HOURS EARNED

Name _____

Date _____

- New
- Update
- Continuation

Course Name	Presented By	Dates	Hours
		Total #	

Include documentation of attendance in the form of a certificate or letter from the sponsoring organization stating the name of the course, date course was held, and number of hours/units awarded. Acceptable programs must be technical in nature (not sales or product oriented) and industry related. To be acceptable, Continuing Education Hours (CEHs) can be no older than 10 years. There is a maximum of 16 credit hours accepted per program.

A minimum of 70 credit hours is required. Please list your continuing education courses in chronological order.

SECTION 7: REFERENCES

Name _____

Date _____

- () New
- () Update
- () Continuation

Name & Company	Address/City, State, Zip	Telephone and Position/Title

Note: Please complete the top portion of the reference form (Attachment Sheet 6) for each person listed above. Send directly to each reference, who should then send the form directly back to IIBEC.



REFERENCE FORM

(Top portion to be completed by applicant)

Date _____

Dear _____:
(Name of reference)

An application for Certified Building Enclosure Commissioning Provider (CBECxP®) has been filed with the International Institute of Building Enclosure Consultants (IIBEC) by

_____ Of _____, _____
(Name of applicant) (Company) (City/state)

Please provide the information requested below, if known, and make any comments that may be of value to IIBEC in evaluating the applicant's qualifications.

Information secured from references is for the confidential use of the organization and the source and character of the information will not be divulged, except in special cases when required by law.

The applicant and IIBEC appreciate your cooperation in promptly furnishing the information requested.

GENERAL INFORMATION

(Bottom portion to be completed by reference)

- 1. Applicant's present position _____
2. Number of years known _____
3. Applicant's moral character, professional ethics and personal reputation are _____
4. How long has the applicant been engaged in building enclosure commissioning (BECx) work? _____
5. In your opinion, is the applicant competent as a BECx provider? _____

Remarks:

Signed _____
Name (Print) _____
Title _____
Company _____
City/State _____
Email _____
Date _____
Are you related to the applicant? _____
If yes, how related _____
Are you a legally licensed engineer/architect? _____
Do you hold an active RRC, RWC, REWC, and/or RBEC? _____
Are you a Building Owner? _____

If for some reason you do not desire to serve as a reference for the applicant, please return this form to us with a comment to that effect. Please return form by mail, email or fax directly to:

International Institute of Building Enclosure Consultants
434 Fayetteville St., Suite 2400
Raleigh, NC 27601
(T) 800-828-1902 or 919-859-0742 (F) 919-859-1328 Email: clewis@iibec.org

SECTION 8: STANDARDS OF ETHICAL PRACTICE**CODE OF ETHICS**
International Institute of Building Enclosure Consultants

Adopted July 17, 2001

Revised March 28, 2006

Revised September 19, 2015

Introduction: The International Institute of Building Enclosure Consultants (IIBEC) is dedicated to the highest standards of professionalism, integrity, and competence. The standards contained in this Code of Ethics (Code) are statements of ethical principles by which the professional conduct and obligations of all IIBEC members and registrants shall be guided.

Under the IIBEC Bylaws, all IIBEC members and registrants are required to comply with the Code of Ethics and to report any observed violations. Adherence to this Code must be above reproach and beyond the influence of competing interests. Even the appearance of a conflict of interest shall be avoided.

The standards contained in this Code of Ethics are statements of ethical principles having broad applicability to members and registrants of IIBEC.

Members and registrants of IIBEC shall recognize that their profession and their practice may be governed by various laws and regulations regarding professional registration and the conduct of trade. It is their responsibility, therefore, to be familiar with those laws and regulations and to conduct themselves accordingly.

General Obligations: Members and registrants shall maintain and further their knowledge of the science in which they practice, and shall maintain the highest possible standard of professional judgment and conduct. Members and registrants shall conduct their practice honestly and impartially, serving with integrity their clients, employers, and/or the public. Learned and uncompromised professional judgment should take precedence over any other motive.

Obligation to the Public: Members and registrants shall uphold the letter and spirit of the ethical standards governing their professional affairs and shall consider the full impact of their actions on the community at large.

Fundamental Canons

Members and registrants of IIBEC, in the performance of their duties, shall:

1. Hold paramount the safety, health, and welfare of the public;
2. Uphold the letter and spirit of the ethical standards governing their professional affairs, considering the full impact of their actions on the community at large and conducting themselves in a fashion that brings credit to themselves, their employers, their peers, and their profession; and
3. Recognize the value and contributions of others engaged in all aspects of consultation, design, and construction.

Rules of Practice

1. Members and registrants shall hold paramount the safety, health, and welfare of the public in the performance of their duties.
 - a. If a member's or registrant's judgment is overruled under circumstances that, in the opinion and best professional judgment of the member or registrant, endanger life or property, the member or registrant shall:
 - i. Advise his or her employer and/or client about the decision,
 - ii. Refuse to consent to the decision, and
 - iii. Notify the appropriate building authority charged with the enforcement of the applicable laws or regulations.
 - b. Members or registrants who have knowledge of any alleged violations of this Code shall report them to the appropriate public authorities and IIBEC, and shall cooperate with appropriate public authorities and IIBEC in providing such information as may be applicable.
2. Members and registrants shall not permit the use of their names or firms nor associate in business ventures with any person or firm that they have reason to believe is engaged in fraudulent or dishonest business or professional practices.
3. Members and registrants shall uphold the letter and spirit of the ethical standards governing their professional affairs, consider the full impact of their actions on the community at large, and conduct themselves in a fashion that brings credit to themselves, their employers, and their profession by:
 - a. Engaging only in accurate, appropriate, and truthful promotion of their practice;
 - b. Being respectful of the rights of others in obtaining work or employment;

- d. performance;
 - e. Being objective and truthful in reports, statements, testimony, and on social media;
 - f. Preserving the confidentiality of their clients and employers and serving each in a professional and competent manner;
 - g. Exercising unprejudiced and unbiased judgment and conduct when performing all services;
 - h. Undertaking assignments only when qualified by education and experience in the specific technical fields involved;
 - i. Declining any activity or employment, avoiding any financial or other interest, and refusing any contribution if it would reasonably appear that such activity, employment, interest, or contribution could compromise their judgment or conduct or prevent them from serving the best interests of their clients or employers, without making full disclosure to the client and obtaining the client's consent thereto; and
 - j. Neither offering nor making any payment or gift to any public official, private client, or industry representative with the intent of influencing that person's judgment or decision in connection with an existing or prospective project in which the member/registrant is interested.
4. Members and registrants shall recognize the value and contributions of others engaged in all aspects of consultation, design, and construction. This means they shall:
- a. Refrain from making false statements about the work of others and shall not maliciously injure or attempt to injure the prospects, practice, or employment position of others;
 - b. Encourage professional education and research, as well as the development and dissemination of information related to all aspects of consultation, design, and construction of roofing, waterproofing, and exterior wall systems; and
 - c. Take into account applicable laws and regulations and may rely on the advice of other competent and qualified persons as to the intent and meaning of such applicable laws and regulations.
5. Members and registrants shall not accept compensation—financial or otherwise—from more than one party for services on the same project, or for services pertaining to the same project, unless the circumstances are fully disclosed.
6. Members and registrants shall not intentionally or recklessly mislead existing or prospective clients about the results that can be achieved through the use of the members' or registrants' services or products, nor shall the members or registrants state that they can achieve results by means that violate applicable law or the Code.
7. Members and registrants having substantial information leading to a reasonable belief that another member or registrant has committed a violation of this Code that raises a serious question as to the honesty, trustworthiness, or fitness of the other member or registrant shall file a complaint with the IIBEC Ethics Committee.
8. Members and registrants shall maintain and further their knowledge of the science, principles, and ethics of their profession.
9. Members and registrants shall be scrupulously honest in their control and spending of monies, and promote effective use of resources through open, honest, and impartial service with fidelity to the public, employers, associates, and clients.
10. Members and registrants shall approve or issue only those documents reviewed or prepared under their direct control and supervision that are determined to be safe for public health and welfare, in conformity with accepted industry standards and applicable laws.
11. Certain practices are not in themselves unethical, unprofessional, or contrary to any policy of IIBEC, and IIBEC members and registrants are free to decide for themselves whether to engage in any of these practices, unless in violation of an applicable law. These may include the following:
- a. Contributing his/her services or anything of value to those endeavors that the member deems worthy;
 - b. Participating in the political process and contributing time and money to political campaigns;
 - c. Submitting competitive bids or price quotations, including in circumstances where price is the sole or principal consideration in the selection of a consultant;
 - d. Providing discounts; or Providing pro bono services.

Enforcement and Amendment

1. Enforcement of the Code of Ethics is administered through the IIBEC Ethics Committee, appointed by the IIBEC Board of Directors, and as set forth in the *IIBEC Ethics Administrative Procedures*.
2. The IIBEC Code of Ethics may be amended by the IIBEC Board of Directors upon a two-thirds vote of the Board

SECTION 9: AFFIDAVIT REGISTRATION, AUTHORIZATION AND RELEASE

Name _____

Date _____

AFFIDAVIT CERTIFICATION AUTHORIZATION AND RELEASE (to be notarized)

State (Province) of _____

County of _____

_____, being first duly sworn, deposes and says:

(Applicant's Name)

I, the Applicant named above, have read the contents hereof, and to the best of my knowledge and belief the statements contained in this application are true in substance and effect and are made in good faith. I hereby subscribe to and agree to conform to the Standards of Ethical Practice for the International Institute of Building Enclosure Consultants (IIBEC). I shall endeavor never to place myself in a conflict of interest or permit myself to be placed in a position that would allow for a potential conflict of interest. Conflict of interest shall be defined as any activity or employment having any significant financial benefit or other interest, or acceptance of any contribution if it would reasonably appear that such activity, employment, interest or contribution could compromise my professional and objective judgment as a building enclosure commissioning provider or prevent me from serving the best interest of my client.

I also hereby authorize any individual, company or institution with whom I have been associated to furnish IIBEC with any information concerning my qualifications for Certified Building Enclosure Commissioning Provider which they have on record or otherwise, and do hereby release the individual, company or organization and all individuals connected therewith from all liability for any damage whatsoever incurred by me as a result of their furnishing such information.

Subscribed and sworn to before me this _____ day of _____, 20____

(Signature of Applicant)

(SEAL)
My Commission expires _____

(Signature of Notary Public)



Application for Certified Building Enclosure Commissioning Provider Payment Form

Enclosed is a check in the amount of: \$425.00 application fee

\$125.00 expediting fee

Charge my VISA MasterCard American Express Discover for:

\$425.00 fee

\$125.00 expediting fee

Name on the card _____ Telephone _____

Account Number _____ Expiration Date _____

3- or 4-Digit Verification Value Code _____

Signature _____ Date _____

Telephone _____ Cell phone _____

Bill to Address: (If different from what is listed on page 1 of the application)

Address: _____

City: _____ State: _____ Zip code: _____

*Please allow 90 days for application processing. Applications will be processed within 45 days for the expediting fee listed above. **Once the application is submitted, all outstanding information must be received within 1 year or the application will become null and void.** Please return (email delivery is preferred) the completed single-sided application along with payment in US dollars to:

International Institute of Building Enclosure Consultants
434 Fayetteville St., Suite 2400
Raleigh, NC 27601
(T) 919-859-0742 or 800-828-1902 (F) 919-859-1328
Email: clewis@iibec.org

CHECKLIST TO ACCOMPANY APPLICATION

Applicant's Name _____

Date _____

--Check or initial in the block at the right indicates that you have completed that requirement of the application.--

1. Application fee enclosed (\$425).....
2. Completed Sections 1 and 2 of the application.....
3. Section 3 of application:
 - a. High school or college diploma enclosed.....
 - b. College transcript(s) have been requested.....
4. Section 4 of application:
 - a. All dates are listed.....
 - b. All employers' names and addresses are listed.....
 - c. Brief description of experience under each employer is listed.....
5. Section 5 of application - Attachment Sheet 2:
 - a. Each project for which experience is included on Attachment Sheet 3.....
 - b. At least ten contact names and phone numbers are listed from three separate categories.....
 - c. All names, locations and dates of projects are listed.....
 - d. All projects registered represent my experience (not someone under my direction).....
 - e. All projects claimed truly reflect worthy experience under the appropriate heading.....
6. Section 5 of application - Attachment Sheet 3:
 - a. All points claimed are summarized by category.....
 - b. Education points are substantiated by a transcript or copy of my diploma (enclosed).....
 - c. Points have been attained in a minimum of three categories.....
 - d. Points claimed for professional registration are substantiated by a copy of my registration certificate or license (enclosed).....
7. Section 6 of application - Attachment Sheet 4:
 - a. All course names, sponsoring organization, dates and credit hours claimed are listed.....
 - b. I have attended a minimum of three industry-related seminars (70 hours)
8. Section 7 of application:
 - a. Listed on Attachment Sheet 5 are five references, three of whom are a licensed architect, Licensed professional engineer, building owner, RRC, REWC, RWC, or RBEC.....
 - b. None of the references is a relative.....
 - c. No more than one of these references is a present employer or fellow employee from current firm
 - d. Made copies of Attachment Sheet 6 for EACH reference. Completed top part only for each.....
 - e. Reference forms sent directly to each reference.....
9. Section 8 of application: Attachment Sheet 7
 - a. I have read and agree to abide by the Standards of Ethical Practice for IIBEC (Attachment Sheet 7).....
10. Section 9 of application: Attachment Sheet 8
 - a. Affidavit has been executed and notarized.....
11. Once an application has been submitted to IIBEC the time limit to provide all outstanding information is one year.

When completed and all spaces are checked, sign below and send the completed application form to IIBEC. If mailing, **do not fold or double-side**. Allow 90 days for processing. **MAKE A COPY OF YOUR COMPLETED APPLICATION BEFORE SENDING TO IIBEC** for your records.

This is to certify that I have completed the application as required by the association, I have checked all details and entries, and herewith submit said application for registration. I understand that certification is contingent upon meeting the requirements of IIBEC and successful completion of the required examinations.

Signature of Applicant _____



STUDY GUIDE

For the

Certified Building Enclosure Commissioning Provider Exam

Prepared By

CBECxP Examination Development Task Force

International Institute of Building Enclosure Consultants
434 Fayetteville St., Suite 2400
Raleigh, NC 27601
800-828-1902 919-859-0742
FAX 919-859-1328

CBECxP EXAM STUDY GUIDE

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STUDY GUIDE FOR CBECxP® EXAMINATION



INTRODUCTION

The **Certified Building Enclosure Commissioning Provider** (CBECxP) program was developed in 2020. The demand for the CBECxP title by private clients and public agencies continues to grow rapidly as the industry recognizes the value of a CBECxP quantified skill-set. The primary beneficiaries of this program are the public, the building commissioning industry, and those individuals who become certified.

The comprehensive application allows IIBEC to verify certain aspects of education, ethics and building enclosure commissioning experience. The online examination confirms these qualifications by testing one's knowledge of building enclosure commissioning and the ability to use this knowledge in practical applications.

This study guide outlines subjects that are addressed in the computer-based examination; however, it is not intended to be an inclusive listing of every topic addressed on the test. This document is strictly a guide. A sample of references used in the development of this exam are provided.

The examination is not tailored to any one particular area of building enclosure commissioning or to the design and construction practices unique to any geographic area. It deals with commissioning in general as indicated by the references listed on the next page. It may include all phases of the building enclosure commissioning process (pre-design, design, bidding and negotiation, construction, and occupancy and operations).

In order to receive a passing score on the examination, the candidate must be thoroughly familiar with a broad spectrum of principles related to building enclosure commissioning. Education and experience are extremely important. However, practical application under the guidance of a qualified mentor may be even more important because it reinforces formal education and training and provides a sound foundation over a broad spectrum. It pulls everything together. The weakness most often identified with exam failure is a narrow focus in the industry.

The CBECxP exam is offered by Scantron, a computer-based testing company, which has over 1,000 conveniently located testing centers worldwide. Approved applicants will be sent exam registration forms. Upon receipt, candidate information will be conveyed to Scantron. Scantron will then contact the candidate to schedule a testing session.

The examination is up to four hours in length and consists of 90 multiple-choice questions that will test knowledge in the following areas: building and materials science; procurement and project delivery; contract documents and construction administration; and performance test standards and methodology. Some problems may involve mathematical computations that require familiarity with basic algebra, geometry and trigonometry. Reference materials, charts and/or tables needed for the solution of problems will be provided online within the exam.

Candidates who do not initially pass the exam will have the option to retry every four months.

Approved applications have a two-year shelf life; and once the application has expired, reapplication will be required. A sample of documents/references that were used to develop the CBECxP Exam is as follows:

REFERENCES*

	Title	Author	Pub. Date
1	ASHRAE Guideline 0, <i>The Commissioning Process</i> , Section 4, Definitions	American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)	2019
2	ANSI/ASHRAE/IES Standard 202, <i>Commissioning Process for Buildings and Systems</i> , Section 3, Definitions	ASHRAE	2018
3	ASTM E631, <i>Terminology of Building Constructions</i>	ASTM International	2015
4	ASTM E2947, <i>Standard Guide for Building Enclosure Commissioning</i>	ASTM International	2016
5	CSA Z320-11, <i>Building Commissioning Standard</i>	CSA America Inc.	2011
6	CSA Z5000-18, <i>Building Commissioning for Energy Using Systems</i>	CSA America Inc.	2018
7	CSA S478-2019, <i>Guideline on Durability in Buildings</i>	CSA America Inc.	2019
8	IIBEC Code of Ethics	IIBEC	

* The references listed above are only some of the many that were used in the development of this exam. This is meant to serve as a guide to illustrate the types of references used; this is not a recommendation or suggestion to purchase all of the publications listed. It is recommended that the applicant review this list as it relates to one's experience/skill set and then prepare accordingly with courses and/or publications which may be helpful to the individual.

As part of the exam development process, the committee of subject matter experts systematically compiled a list of tasks and objectives that relate to the responsibilities, knowledge, and skills associated with the building enclosure commissioning process. This list provided the organizational framework for the exam and is included below. The percentage of questions on the exam from each section is indicated.

TEST OBJECTIVES

Sections	Section/Objective Title	Percentage of questions from section on exam
Section 1	BECx Core Competencies	20%
Objective 1.1	Demonstrate knowledge of building enclosure systems and material science	
Objective 1.2	Demonstrate knowledge of procurement and project delivery	
Objective 1.3	Demonstrate knowledge of contract documents and construction administration	
Section 2	BECx Pre-design	20%
Objective 2.1	Determine and communicate basic owner project requirements (OPR) related to the building enclosure	
Objective 2.2	Relate basis of design (BOD) to building enclosure requirements	
Objective 2.3	Create building enclosure commissioning (BECx) plan	
Section 3	BECx Design	20%
Objective 3.1	Evaluate design and construction alternatives against OPR	
Objective 3.2	Facilitate communication plan related to OPR, BOD, and BECx plan	
Objective 3.3	Evaluate BECx team	
Section 4	BECx Bidding and Negotiation	10%
Objective 4.1	Demonstrate knowledge of contract documents and submittals	
Objective 4.2	Develop testing and observation schedule	
Section 5	BECx Construction	20%
Objective 5.1	Observe workmanship versus contract documents and mock-ups.	
Objective 5.2	Compare contractor's QA and QC to contract documents	
Objective 5.3	Explain scope, purpose, and intent of testing; evaluate testing firms and laboratories	
Section 6	BECx Occupancy & Operations	10%
Objective 6.1	Compile maintenance and system manual	
Objective 6.2	Develop closeout documentation	
	Total Percentage	100%