MANUAL OF POLICY AND POSITION STATEMENTS

August 2022



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Revised August 2022



INTRODUCTION

This manual contains policies in the following categories of Council operations: Administrative Policies (AP), Examination Development Policies (EDP), Examination Administration Policies (EAP), Financial Policies (FP), and Professional Policies (PP). NCEES positions on various issues are also included.

The Council establishes all policy not in conflict with the *Bylaws*. Committees of the Council, in accordance with the *Bylaws* and their assigned committee charges, may advise the board of directors through their annual reports regarding the creation, rescission, or amendment of policy in their respective areas of responsibility.

With the adoption of this *Manual of Policy and Position Statements* by the Council, all previous policies not contained herein, either written or implied, are void.

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ADMINISTRATIVE POLICIES

AP 1 Creation of Council Policy

It is the right of every member board of NCEES to bring matters of policy before the Council for consideration. Normally, items for consideration will be submitted to the proper committee for deliberation. The committee will send its recommendations to the board of directors for action prior to ratification by the Council.

AP 2 Liability Insurance

NCEES shall secure and maintain liability insurance coverage in an amount determined by the board of directors to defend, indemnify, and hold harmless the Council and its officers and employees against all claims or civil torts arising from state and federal laws or the fact that they are officers or employees of NCEES.

AP 3 Council Identification

All NCEES examinations and other publications shall carry the title "National Council of Examiners for Engineering and Surveying."

AP 4 Past Examinations

Exam items from past examinations that are no longer in use may be included in sample exams and sold to the general public through NCEES.

AP 5 Copyright of NCEES Publications

All publications of NCEES are protected by copyright. Written permission to reproduce any publication, wholly or in part, must be obtained from NCEES.

AP 6 Views, Opinions, Interpretations, and Positions

The official position of the Council regarding any matter must be approved by the Council or authorized by the board of directors.

AP 7 Committee Communications, Reports, and Recommendations

- A. The purpose of committee reports and communications is to respond to the charges as assigned by the Council president. Accordingly, it is incumbent upon committees and their respective chairs to provide the information to the board of directors, via the president, prior to publication and/or pronouncements that may be interpreted as Council policy or position.
- B. Those committees whose constitutional functions and charges require or authorize them to perform liaison or interface with external organizations shall seek guidance or approval from the board of directors prior to enunciating Council policy/positions or requesting action by the external organization on behalf of NCEES.

AP 8 Motions

Motions before the Council at the annual business meeting shall not be voted upon at the same business session in which they are introduced and initially discussed or prior to zone meetings. This policy shall not apply to privileged or subsidiary motions and may be suspended for other motions upon approval by a two-thirds majority vote.

Any motion to amend the *Model Law* or *Model Rules* presented at an annual business meeting by an entity other than the Committee on Uniform Procedures and Legislative Guidelines (UPLG) shall be referred to the UPLG Committee for review and revision of the language before it is presented for Council vote at the next scheduled annual business meeting.

Any motion to amend exam prices in Financial Policy 6 that is presented at an annual business meeting by an entity other than the Committee on Finances shall be referred to the Committee on Finances for review and revision of the language before it is presented for Council vote at the next scheduled annual business meeting.

AP 9 Consent Agenda

The board of directors shall prepare a consent agenda for each annual business meeting. Individual motions may be removed from the consent agenda upon request by any member board.

AP 10 NCEES/Professional Society Interface

The relationship with societies representing members of the engineering and surveying professions shall be consistent with the purpose and goals of the various licensure laws enacted to safeguard the health, safety, and welfare of the public. The members of the board of directors are the primary spokespersons for NCEES policy and shall represent NCEES at such society meetings as it may decide are in the best interests of the Council. The president shall decide who will represent NCEES at such meetings or forums, as well as the manner and extent of NCEES representation.

AP 11 Annual Business Meeting Planning

NCEES will make all arrangements for the annual business meeting.

AP 12 Awards

NCEES will officially recognize members, associate members, emeritus members, and other volunteers who provide or have provided outstanding service to NCEES. The members of the Committee on Awards and the board of directors shall not be nominated for these awards while serving on the Committee on Awards or on the board of directors. In evaluating nominations, the following guidelines are to be observed:

Distinguished Service Award

- Must be a current member, a former member, or an emeritus member
- Must promote engineering or surveying licensure at the state or national level
- Must demonstrate positive contributions to the advancement of the engineering or surveying profession and the mission and vision of NCEES
- May include participation in professional or technical societies as a consideration
- Must demonstrate active participation in member board activities
- Must include distinguished service on at least one NCEES committee
- May be nominated by a member board

Distinguished Service Award with Special Commendation

- Must have received the Distinguished Service Award at least six years prior to receiving the
 Distinguished Service Award with Special Commendation. Any exception based on extraordinary
 circumstances must be approved by the NCEES board of directors with recommendation by the
 Committee on Awards.
- Must demonstrate service prior to and after receiving Distinguished Service Award
- Must be a current member, a former member, or an emeritus member
- Must promote engineering or surveying licensure at the national level
- Must demonstrate positive contributions to the advancement of the engineering or surveying profession and the mission and vision of NCEES
- May include participation in professional or technical societies as a consideration
- Must demonstrate active participation in member board activities
- Must include leadership or exemplary service on at least one NCEES committee
- May be nominated by a member board

Meritorious Service Award

- Must be a current or former associate member
- Must demonstrate positive contributions to the advancement of the engineering or surveying profession and the mission, vision, and goals of his or her board and NCEES
- Must participate in member board activities
- Must participate in the promotion of licensure or the enforcement of member board laws and rules
- Must include distinguished service on at least one NCEES committee
- May be nominated by a member board

Distinguished Examination Service Award

- Must demonstrate positive contributions and longtime commitment to the NCEES examination program
- Must have served on at least one of the Council's examination committees or exam-related task forces
- Must demonstrate exemplary service and leadership in the advancement and improvement of NCEES examinations and the exam-development process
- May be nominated by a member board, an exam committee, or the board of directors

President's Award

 May be given by the president to recognize an individual for outstanding service in support of NCEES

AP 13 Consultants and Corresponding Members

NCEES will use the services of consultants and/or corresponding members in the activities of NCEES committees when required. Persons in this category shall be individuals of special expertise or knowledge appointed by the president to serve on any special or standing committee and shall be included in the total complement of the committee. They may or may not be a member of a member board. They may participate in the deliberations of the committee but may not make, second, or vote on motions.

Attendance of consultants and/or corresponding members at committee meetings shall be specifically requested by the committee chair and approved by the president. They will not receive any compensation other than expenses in accordance with the NCEES travel policy.

AP 14 Non-NCEES Publications

NCEES will refrain from endorsing publications relating to engineering and surveying examinations or purporting to be review texts for NCEES examinations, other than those published by NCEES. Further, NCEES shall refrain from reviewing and/or advising would-be authors of proposed publications relating to NCEES uniform examinations.

AP 15 Awards by National Organizations Other than NCEES

NCEES will refrain from submitting nominations for awards given by other national organizations. This policy shall not be construed, however, to prohibit the member boards from making such nominations as they deem appropriate.

AP 16 Delegates to ABET, Inc.

- A. NCEES is a member society of ABET, Inc. Pursuant to the ABET Constitution, the Council is authorized to appoint one delegate to ABET's board of delegates, not to exceed a three-year term of office. A delegate may not serve more than two consecutive terms of office.
- B. The president shall, subject to approval by the board of directors, appoint NCEES' primary and alternate delegates to ABET. The appointments shall be for a period of three years; appointments may be vacated by a majority vote of the NCEES board of directors.

C. The president shall, subject to the approval by the board of directors, appoint representatives to the ABET Commissions. Their appointments shall be for a maximum of five one-year terms. The appointments may be vacated by a majority vote of the NCEES board of directors.

AP 17 Representatives to the International Engineering Alliance and Related Organizations

- A. NCEES shall be represented at the International Engineering Alliance (IEA) and related organizations by the president, president-elect, and chief executive officer. The president may, subject to approval by the board, appoint substitute representatives.
- B. All travel expenses shall be funded in accordance with Financial Policy 3 and the *NCEES Travel Policy*.
- C. When seeking election or reelection to an office or an appointment to a committee or working group of IEA or related organizations, an individual must first obtain approval of the NCEES board of directors.

AP 18 Council Support to Nominees for National Office Support for nominees to national NCEES offices is limited to providing addresses of the NCEES members.

AP 19 Removal or Sanction of a Member of the Board of Directors

A. Charges

- 1. Any member of the Council may report an alleged violation of the ethics policy by a member of the NCEES board of directors as set forth in Section 4.08 of the *Bylaws*. The allegation(s) must be in writing, be notarized, and contain adequate detail or information to support the allegation(s). The allegation(s) shall be forwarded by registered letter to the president of NCEES with a copy to the chief executive officer. If the president is the respondent in this matter, the registered letter will be forwarded to the president-elect with a copy to the chief executive officer.
- 2. Upon receipt of a notarized letter of charges, the chief executive officer will provide a copy of the letter and the supporting information to each member of the board of directors, including the board member against whom the allegation(s) has been preferred, the board's legal counsel, and the chair of the Advisory Committee on Council Activities (ACCA). Any member of the board who files charges against another board member shall automatically be recused from further participation in the matter.

B. Investigation

- 1. The charges and any supporting documents will be referred to an Investigations Panel that consists of the chair of ACCA; the most immediate past president that is not currently serving as a member of the board of directors; a member of a member board or member board administrator selected by the board; and board counsel. The Investigations Panel is empowered to investigate the allegation(s) and to provide the results of the investigation and recommendations to the board for appropriate action. In conducting an investigation, the Investigations Panel may request additional information from the complaining party to substantiate the charge(s); a written response to the charge(s) from the accused board member and supporting documents; and information from individuals who have information pertaining to the alleged wrongful act(s).
- 2. Upon completion of the investigation, the Investigations Panel will consider all information and then provide a written report to the board with the findings of the investigation and a recommendation on disposition of the allegation(s). The results of the investigation are confidential until the board acts on the recommendations of the Investigations Panel.

C. Recommendations of Board

- 1. Upon receipt of the findings and recommendations of the Investigations Panel, the board of directors shall convene to consider the information and to vote on the recommended action. After considering the results of the investigation and the recommendations of the Investigations Panel, the board will refer the findings and recommendations for sanction or removal of the charged board member to ACCA for a hearing of the charges unless it is determined that the charges are deemed to be unfounded or trivial. If the board deems the charges to be unfounded or trivial, the charges will be dismissed and notification of this action will be submitted in writing to the charged board member with copies to the complaining party and the chair of ACCA. If the board recommends that sanctions be levied or the board member be removed, the findings and the recommendations of the board will be referred to ACCA so that a Grievance Committee may be convened to conduct a hearing.
- 2. The charged board member will be suspended from official duties until resolution of the charges unless a majority of the board members vote to the contrary.

D. Hearing

- 1. Upon receipt of the findings of the board of directors and recommended action for sanctions or removal of the charged member, the chair of ACCA will convene a Grievance Committee in accordance with the provisions of Section 4.07 of the *Bylaws* to conduct a hearing of the allegations. The charged member will be notified of the specifics of the charges by the fastest means available, followed by a registered letter that includes the hearing date, time, and place. Notice of the hearing before the Grievance Committee shall be given to the charged member at least 30 days prior to the hearing. The board counsel shall prosecute the matter before the Grievance Committee. The presiding officer shall be selected by a simple majority vote of the members of the Grievance Committee, and all procedural matters will be handled in a like manner. The charged board member shall be entitled to present evidence on his or her behalf and to be represented by legal counsel. Failure to present evidence in defense shall not be construed as an admission to the charge(s).
- 2. The Grievance Committee shall receive testimony and other evidence presented during the course of the hearing in its consideration of this matter. At the conclusion of the hearing, the Grievance Committee will retire in executive session to deliberate the matter. In its deliberations, the Grievance Committee will consider all information presented during the course of the hearing along with the findings of the board and the board's recommended action.

E. Recommendations of Grievance Committee

- If the Grievance Committee, by majority vote, affirms the recommended action of the board of directors, this information will be provided to the board in the form of written findings of the Grievance Committee, and the board will then implement the removal or sanction of the board member.
- 2. If the Grievance Committee, by majority vote, does not concur with the recommended action of the board, that information will be transmitted to the board along with recommendations for alternative discipline against the board member. Upon notification that the Grievance Committee has not affirmed the recommendations, the board may adopt the alternative discipline as recommended by the Grievance Committee or may recommend that charges be dismissed. The board decision to adopt the recommended action of the Grievance Committee or to dismiss the charges shall be final.

EXAMINATION POLICIES

Examination Development Policies (EDP)

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EDP 2	Examination Quality Standards
EDP 3	Engineering and Surveying Examinations and Formats
EDP 4	Entry of New Discipline or Depth Module or Reinstatement to PE Examination Status
EDP 5	Adoption of a New Discipline-Specific FE Examination
EDP 6	Dividing an Existing Examination into Multiple Examinations
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Examination Administration Policies (EAP)

EAP 1	Administration of Examinations
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EAP 3	Release and Return of Examinations and Seating Charts for Pencil-and-Paper Examinations
EAP 4	Materials Permitted and Not Permitted in Examination Room
EAP 5	NCEES Examination Jurisdiction Requirements
EAP 6	Access to and Review of Examinations
EAP 7	Requests for Special Examination Accommodations
EAP 8	Release and Use of Examination Results
EAP 9	Providing Examination Results for Licensing by Comity
EAP 10	NCEES Examinations Offered at Foreign Sites
EAP 11	Security and Administrative Procedures
EAP 12	Exam Administration Audits
EAP 13	Proctors for Administration of Examinations

EXAMINATION POLICIES

Examination Development Policies (EDP)

EDP 1 Examinations

It shall be the policy of NCEES in all publications and correspondence to refer to the respective examinations only as follows:

- A. Fundamentals of Engineering (FE) examination
- B. Principles and Practice of Engineering (PE) examination, which includes the PE Structural examination
- C. Fundamentals of Surveying (FS) examination
- D. Principles and Practice of Surveying (PS) examination

The purpose of the examinations is to assess licensure candidates' abilities to practice competently as engineers or surveyors and to assist member boards in the regulation of the practice of engineering and surveying as it relates to safeguarding the health, safety, and welfare of the public.

EDP 2 Examination Quality Standards

The goal of the NCEES examinations program shall be for the development, use, and scoring of examinations prepared by, or under control of, NCEES to comply with the current edition of *Standards for Educational and Psychological Testing*—as published jointly by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education—or other nationally accepted standards.

EDP 3 Engineering and Surveying Examinations and Formats

A. Fundamentals of Engineering Examination

The Fundamentals of Engineering examination shall be administered via computer-based testing (CBT) and have supplied references.

B. Principles and Practice of Engineering Examinations

The Principles and Practice of Engineering examinations shall be offered in the following disciplines and shall be open-book, pencil-and-paper examinations or offered closed-book via CBT with supplied references as defined in EAP 4:

- 1. Agricultural and Biological
- 2. Architectural
- 3. Chemical
- 4. Civil—Construction
- Civil—Geotechnical
- 6 Civil—Structural
- 7. Civil—Transportation
- 8. Civil—Water Resources and Environmental
- 9. Control Systems
- 10. Electrical and Computer—Computer Engineering
- 11. Electrical and Computer Electronics, Controls, and Communications
- 12. Electrical and Computer-Power
- 13. Environmental

- 14. Fire Protection
- 15. Industrial and Systems
- 16. Mechanical-HVAC and Refrigeration
- 17. Mechanical—Machine Design and Materials
- 18. Mechanical—Thermal and Fluid Systems
- 19. Metallurgical and Materials
- 20. Mining and Mineral Processing
- 21. Naval Architecture and Marine
- 22. Nuclear
- 23. Petroleum
- 24. Structural

The PE Structural examination shall consist of two components: the Vertical Forces (gravity/other) and Incidental Lateral component and the Lateral Forces (wind/earthquake) component. The PE Structural examination shall be considered and referred to as one examination.

C. Surveying Examinations

The surveying examinations shall be available as follows:

- 1. The Fundamentals of Surveying examination shall be administered via CBT and have supplied references.
- 2. The Principles and Practice of Surveying examination shall be administered via CBT and have supplied references.
- 3. Member boards shall reserve the right to administer, score, and report state-specific examinations.

D. Examination Item Banks

Examination items for all examinations shall be maintained either at NCEES headquarters or at an offsite testing service that is able to demonstrate insurance, bond, or reserve to cover the pecuniary liability for the items should the items be compromised, lost, or damaged by the testing service.

- 1. At the time an exam development committee releases a linear, fixed form (LFF) exam to be published, the exam item bank shall contain sufficient operational items to create three times the number of exam forms available to examinees in a testing window.
- 2. At the time an exam development committee releases a pool of items to be published for linear-on-the-fly testing (LOFT), the pool shall contain, at a minimum, the number of operational items required to create three unique, non-overlapping exam forms. At the time of publishing, the exam item bank shall have sufficient operational items to create two additional pools of similar composition. Pool size will be determined by the psychometric consultant per the criteria listed in the NCEES *Exam Development Procedures Manual*.

E. Exam Contingency Plans

The chief executive officer shall have contingency plans available in the event of any irregularity that impacts the security of an exam or the ability to administer an exam per NCEES exam policies or prescribed schedules.

F. Exam Preparation Material Development

Exam preparation material shall be developed for each NCEES examination. This material shall provide sample questions and solutions on each major topic area sufficient to provide candidates with a sense of the structure, scope, and difficulty of the examination. Exam preparation material shall remain current and be available six months prior to the administration of an examination.

EDP 4 Entry of New Discipline or Depth Module or Reinstatement to PE Examination Status

A. Accreditation Requirement

No discipline shall be added or reinstated to the examination program unless there is an EAC/ABET-accredited program in the discipline.

B. Technical Society Involvement

No discipline shall be added or reinstated unless a technical society agrees to support the examination. All technical societies that support examinations shall sign an agreement with NCEES delineating the responsibilities of both parties.

C. Member Board Requirement

Requests for examinations and/or depth modules shall be made by no fewer than 10 member boards collectively who can each demonstrate a need for the examination or depth module in their jurisdiction. A request older than four years must be reaffirmed by the member board. Requests shall include proof of such need, estimate of usage, and impact on safeguarding the health, safety, and welfare of the public. Proof of need shall include evidence that knowledge areas and skills are not adequately measured in an existing examination or module and that additional knowledge areas and skills required for the discipline are sufficient to support a new examination or module.

D. Minimum Number of Exam Candidates

No discipline or depth module shall be added or reinstated to the examination program unless the number of candidates for an ongoing examination conforms to NCEES policies and procedures. If that is demonstrated, a professional activities and knowledge study (PAKS) shall be conducted to establish that the addition in question is composed of a unique set of knowledges important for safeguarding the health, safety, and welfare of the public.

E. CBT Format

The request shall include a plan to develop the exam in CBT format.

F. Notification to Member Boards

Member boards shall be notified one year in advance of the addition or reinstatement of any discipline or depth module to the PE examination program.

EDP 5 Adoption of a New Discipline-Specific FE Examination

A. Accreditation Requirement

No discipline shall be added to the examination program unless there is an EAC/ABET-accredited program in the discipline.

B. Member Board Requirement

Requests for the discipline-specific FE examination must be made by no fewer than 10 member boards collectively who can each demonstrate a need for that discipline in their jurisdiction. Requests shall include proof of such need, estimate of usage, and impact on safeguarding the health, safety, and welfare of the public. Proof of such need shall include evidence that knowledge areas and skills are not adequately measured in an existing FE examination and evidence that those knowledge areas and skills required for the discipline are sufficient to support a new FE examination.

C. Notification to Member Boards

Member boards shall be notified at least one year in advance of the addition of any disciplinespecific module to the FE examination program.

EDP 6 Dividing an Existing Examination into Multiple Examinations

Requests to divide an existing examination into multiple examinations should be made to the Committee on Examinations for Professional Engineers (EPE) or the Committee on Examinations for Professional Surveyors (EPS). Requests shall include proof of such need (PAKS), estimate of usage, and impact on safeguarding the health, safety, and welfare of the public. Requests shall include evidence that knowledge areas and skills required for the discipline are sufficient to support separate examinations. The EPE/EPS Committee will perform due diligence with regard to the request and make a recommendation to the board of directors for action. Requests to create an examination for which there are no existing depth modules shall comply with EDP 5.

EDP 7 Deleting/Combining/Renaming a Discipline or Module from the Examination Program

A. Deleting/Combining of Pencil-and-Paper Examinations

If in two consecutive administrations of pencil-and-paper examinations, there have been fewer than 50 total first-time examinees from NCEES jurisdictions in a specific examination or module, the Committee on Examination Policy and Procedures (EPP) shall review the desirability of continuing the subject examination or module and make one of the following recommendations to the board of directors:

- 1. Continue to prepare the examination or module.
- 2. Request the appropriate exam development committee and the supporting technical society to prepare and submit a specific remedial action plan for increasing the number of first-time takers to a level that meets or exceeds the minimum candidate requirements in the time period specified by the EPP Committee.
- 3. Place the examination or module on probation. The EPP Committee shall specify the conditions of the probation, including a time frame for corrective action. The recommendation may include the combination of the examination with another examination or other such action as the EPP Committee deems appropriate.
- 4. Discontinue the examination or module.
- B. Deleting/Combining of CBT Examinations

If the population of first-time examinees from NCEES jurisdictions for any NCEES CBT examination or module is not adequate to provide for accurate psychometric analysis, the EPP Committee shall review the desirability of continuing the subject examination or module and make one of the following recommendations to the board of directors:

- 1. Continue to prepare the examination or module.
- 2. Request the appropriate exam development committee and the supporting technical society to prepare and submit a specific remedial action plan for increasing the number of first-time takers to a level that meets or exceeds the minimum candidate requirements in the time period specified by the EPP Committee.
- 3. Place the examination or module on probation. The EPP Committee shall specify the conditions of the probation, including a time frame for corrective action. The recommendation may include the combination of the examination with another examination or other such action as the EPP Committee deems appropriate.
- 4. Discontinue the examination or module.
- C. Request to Delete an Examination or Module

If an NCEES committee, technical society, or other group desires to have an examination or module deleted, it should make a request to the EPE/EPS Committee. The EPE/EPS Committee will review the request and make a recommendation to the board of directors.

D. Request to Rename an Examination

Any requests to rename an examination or module or to combine two or more discipline examinations or modules should also be made to the EPE/EPS Committee. Requests shall include proof of such need, estimate of usage, and impact on safeguarding the health, safety, and welfare of the public. Proof of such need shall include evidence that knowledge areas and skills are not measured adequately in an existing examination or module and evidence that those knowledge areas and skills required for the discipline are sufficient to support a new, combined, or renamed examination or module. The EPE/EPS Committee will review the request and make a recommendation to the board of directors.

E. Adequate Item Bank Requirement

If an examination fails to have an adequate item bank as specified in paragraph D of EDP 3, including solutions and knowledges being assessed, the EPP Committee shall review the desirability of continuing the examination or module and make one of the following recommendations to the board of directors:

- 1. Continue to prepare the examination or module.
- 2. Discontinue the examination or module.
- 3. Place the examination or module on probation and recommend specific remedial action that may include contracting for item writing with an outside entity or other such action as the EPP Committee deems appropriate. If such remedial action fails to cause the examination to meet the requirements of paragraph D of EDP 3 within one year after the examination was put on probation, the EPP Committee shall recommend appropriate action to the board of directors.

F. Sufficient Data for Exam Audit Requirement

If an examination fails to provide the Committee on Examination Audit with sufficient data to conduct an adequate audit for two consecutive audit cycles, the EPP Committee shall review the desirability of continuing the examination or module and make one of the following recommendations to the board of directors:

- 1. Continue to prepare the examination or module.
- 2. Discontinue the examination or module.
- 3. Place the examination or module on probation and recommend specific remedial action that the EPP Committee deems appropriate. If the examination entity fails to provide sufficient data to successfully complete the next scheduled examination audit, the EPP Committee shall recommend appropriate action to the board of directors.

G. Temporary Suspension of an Examination

If, upon the chief executive officer's recommendation and an EPE/EPS Committee evaluation, the board of directors determines that an examination does not meet the policies, specifications, and/or guidelines of the Council, the board of directors may temporarily suspend the offering of an examination in that particular discipline.

EDP 8 Changes in Procedures or Format

Member boards shall be notified one year in advance of any change in the examination administration procedures or any change in format that requires dissemination to applicants.

EDP 9 Adoption of a New Depth Module for the PS Examination

A. Member Board Requirement

Requests for depth modules shall be made by no fewer than 10 member boards collectively who can each demonstrate a need for the depth module in their jurisdiction. A request older than four years must be reaffirmed by the member board. Requests shall include proof of such need, estimate of usage, and impact on safeguarding the health, safety, and welfare of the public. Proof of need shall include evidence that knowledge areas and skills are not adequately measured in an existing examination or module and that additional knowledge areas and skills required for the discipline are sufficient to support a new module.

B. Minimum Number of Exam Candidates

No discipline or depth module shall be added or reinstated to the examination program unless the number of candidates for an ongoing examination conforms to NCEES policies and procedures. If that is demonstrated, a professional activities and knowledge study (PAKS) shall be conducted to establish that the addition in question is composed of a unique set of knowledges important for safeguarding the health, safety, and welfare of the public.

C. Statutory Requirement for a Depth Module

A depth module must address a distinct PS practice area included within statutory coverage of the jurisdiction in the member boards requesting the module.

D. CBT Format Requirement

The request shall include a plan to develop the exam in CBT format.

E. Notification to Member Boards

Member boards shall be notified one year in advance of the addition of any depth module to the PS examination.

EDP 10 Item Writers, Pass-Point Evaluators, Reviewers, and Scorers

A. Qualification Requirement

Each person involved as an item writer, pass-point evaluator, reviewer, or scorer for the NCEES PE or PS examinations must have an active professional license issued by an NCEES member board, must be qualified in the appropriate discipline, and must be familiar with requirements for and capabilities of candidates who are minimally qualified to practice in that discipline. Engineers and surveyors with licenses that have inactive or retired status are ineligible to serve in these positions.

B. Pass-Point Evaluation Team Requirements

Exam committees shall require that at least one person who participates on the pass-point evaluation team be a person who has worked on the current development of an examination undergoing a pass-point evaluation. The number of current exam development members participating in the pass-point evaluation shall be no more than one-quarter of the pass-point evaluation team.

C. Restriction on Teaching Courses

Any person serving on an NCEES examination development committee or involved in a pass-point evaluation panel shall not teach a course related to the preparation for that examination within three years after serving on the committee or panel.

D. Exam Developers Requirement

Any person involved in the development of an NCEES examination who is later required by a member board to sit for that examination must inform that member board of their involvement in the development of that examination.

EDP 11 Security of Examination Material

No items or item banks in current use for NCEES examinations shall be used for any purpose outside of the NCEES examination program.

EDP 12 Foreign Language

NCEES shall prepare examinations only in the English language.

EDP 13 Reporting of Scores

All examination results shall be reported to member boards.

EDP 14 EPE and EPS Committee Member Qualifications

Members of the EPE and EPS Committees should include current and/or past representatives from their respective exam development committees.

EDP 15 Examination Audits

The Committee on Examination Audit shall audit all examinations developed by NCEES. The following constraints shall be used:

A. Pencil-and-paper examinations

- 1. All benchmark exams, which are the first exams administered following a professional activities and knowledge study (PAKS), shall be audited.
- 2. Each exam shall be audited at least once between benchmark exam audits.
- 3. There shall be no more than four years between audits.

B. CBT examinations

- 1. CBT representative examinations (as created by the testing service psychometrician) from the benchmark item pool, which is the first item pool following a PAKS, shall be audited.
- 2. CBT representative examinations shall be audited at least once between benchmark item pool audits.
- 3. There shall be no more than four years between audits.

The president-elect shall, in developing charges for the Committee on Examination Audit, develop a list of examinations for audit in consultation with the current chair of the Committee on Examination Audit and the NCEES chief officer of examinations. Circumstances may prevail that would affect which examinations are selected for audit in a given year.

The Committee on Examination Audit shall review each exam audited as to its conformance with specified criteria set forth in the Committee on Examination Audit procedures.

Examination Administration Policies (EAP)

EAP 1 Administration of Examinations

A. Guidelines and Procedures

NCEES will publish the *Security and Administrative Procedures Manual* to provide guidelines and procedures that member boards shall follow in the use of NCEES engineering and surveying examinations. The guidelines and procedures will cover matters concerning security, use, scoring, and general administration of such examinations for the purposes for which they are designated to ensure fair and equitable treatment of member boards and examination candidates.

B. Testing Regulations

NCEES will provide the *NCEES Examinee Guide* to each candidate approved to take NCEES examinations. The *NCEES Examinee Guide* includes information regarding regulations to be observed during the examinations and actions that may be taken in the event of a testing irregularity.

C. Candidate Admission

Approval of candidates applying to take NCEES examinations may be by the individual member boards or their designated representative. To be admitted to an NCEES examination, candidates will be required to create an account with NCEES. Candidates not allowed admission to the morning session of a pencil-and-paper examination will not be admitted to the afternoon session.

D. Restriction of Who Can Be in the Examination Room

For pencil-and-paper examinations, only preauthorized member board members, member board staff, proctors, NCEES-designated representatives, and candidates taking an examination will be permitted in the examination room.

E. Restriction of Retaking an Examination

Candidates who have passed an examination may not retake that same examination unless required by a member board.

F. Irregularity Restriction

If a candidate's examination results are not released due to a suspected exam irregularity, the candidate will not be allowed to register for another exam until the investigation is complete and the irregularity has been resolved per the *Security and Administrative Procedures Manual*.

G. Examination Scheduling Restriction

A candidate for a CBT exam may take the examination only one time per testing window and no more than three times in a 12-month period.

H. Committee on Examination Audit

The Committee on Examination Audit shall include, as part of its auditing responsibilities, a review of the *Security and Administrative Procedures Manual* for content and effectiveness.

I. Banned Registration Requirements

If a member board bans an examinee from registering for an examination, it shall be the responsibility of that member board to notify NCEES of the specific terms and reasons for the ban. NCEES will update the examinee's account to make this information available to all member boards. The decision as to whether another member board agrees to honor the terms of the original member board's decision to ban this examinee's registration will remain with the individual member boards.

EAP 2 Examination Schedules

A. Pencil-and-Paper Examinations

A schedule of examination dates shall be published for the PE Structural examination, and the schedule shall be updated annually by NCEES staff and affirmed by the board of directors. The examination dates should avoid conflicts with public and religious holidays.

NCEES will schedule and administer the PE Structural examination on the published dates. The Vertical Forces (gravity/other) and Incidental Lateral component and the Lateral Forces (wind/earthquake) component will be administered on subsequent days.

Any request for deviation from this policy must be submitted within the prescribed lead time to be considered for approval. A request for any deviation must conform to the applicable NCEES guidelines and must be approved by the NCEES compliance and security manager. Each request will be reviewed on its own merits.

B. CBT Examinations

NCEES will administer CBT examinations in the published timeframes or on the published dates as noted in the *Security and Administrative Procedures Manual*. The schedule shall be updated annually by NCEES staff and affirmed by the board of directors.

EAP 3 Release and Return of Examinations and Seating Charts for Pencil-and-Paper Examinations Exam books will not be delivered prior to the regularly scheduled date for shipping orders for a particular administration.

All exam booklets, answer sheets, and solution pamphlets must be returned to the exam printer in accordance with the NCEES *Security and Administrative Procedures Manual*.

Seating charts for each exam site and other administrative material must be transferred back to NCEES in accordance with the NCEES *Security and Administrative Procedures Manual*.

EAP 4 Materials Permitted and Not Permitted in Examination Room

- A. Pencil-and-Paper and CBT Examinations
 - Devices or materials that might compromise the security of the examination or examination process are not permitted. These include any devices with copying, recording, or communication capabilities.
 - 2. Only models of calculators as specified or supplied by NCEES are permitted in the examination room.
 - 3. Only NCEES-supplied marking and erasing instruments are permitted for use in the examination room.
 - 4. Other items specifically allowed by the current NCEES Examinee Guide are permitted.

B. Pencil-and-Paper Examinations

- 1. The following reference materials and aids may be brought into the examination room for the examinee's personal use only:
 - a. Handbooks and textbooks
 - b. Bound reference materials, provided that the material be and remain contained (bound) in a cover during the entire examination. The term "bound" refers to the following:
 - (1) Material bound permanently, i.e., stitched or glued
 - (2) Material fastened securely in its cover by fasteners that penetrate all papers, e.g., ring binders, spiral binders, plastic snap binders, brads, screw posts. Loose material inside binder pockets does not qualify as bound.

- 2. Examinees are not permitted to exchange any reference materials.
- 3. Writing tablets, unbound tables, or unbound notes are not permitted in the examination room.
- 4. Examinees may tab reference books prior to the examination with Post-it[™] type notes and flags, but pads of Post-it type notes and flags are not permitted in the examination room.

C. CBT Examinations

Only NCEES-supplied reference materials are permitted for use in the examination room.

EAP 5 NCEES Examination Jurisdiction Requirements

A. Jurisdiction Requirements

Individual applicants should apply to a member board in accordance with that jurisdiction's operating policies and procedures.

B. Approved Test Centers

Approved examinees may sit for a CBT examination at any NCEES-approved test center located in North America or any U.S. territory.

C. Military Accommodations

Approved examinees from the U.S. military serving outside of the United States and U.S. territories and their spouses residing outside of the United States and U.S. territories may request to take a CBT examination at an NCEES-approved test center located outside of these areas. NCEES will review all requests and make recommendations regarding the approval of the request.

D. PE Structural Exam Administration

The pencil-and-paper administration of the PE Structural exam is offered as a regional exam and administered only by NCEES. This policy will continue until the exam transitions to computer-based testing. Examinees will be allowed to travel beyond jurisdictional boundaries to take the exam.

EAP 6 Access to and Review of Examinations

There shall be no post-administration access to, or review of, examination materials by examinees or their representatives.

Examinees may request that their results for multiple-choice questions from a pencil-and-paper examination be verified by NCEES by manual verification, for a fee established by the NCEES board of directors.

EAP 7 Requests for Special Examination Accommodations

NCEES must determine reasonable, fair, and equitable methods to be employed to administer examinations to candidates. All such accommodations shall comply with applicable federal and state laws and regulations. NCEES will review all requests for accommodation and make recommendations regarding the approval of the request.

EAP 8 Release and Use of Examination Results

A. Results Reporting

Examination results shall be released only to the respective member board or its designee and directly to examinees. Examination results for candidates suspected of an exam irregularity shall not be released until the irregularity has been resolved per the *Security and Administrative Procedures Manual*. Reporting of examination results for candidates will be reported only as pass or fail. All failing candidates will be provided with a diagnostic report to indicate performance on those sections attempted.

B. Validity and Integrity

NCEES shall strive to ensure that the validity and integrity of the examinations are preserved and examinees are treated in a fair and equitable manner. NCEES reserves the right to treat exam scores as final and not subject to change after one year has passed from the date of release from NCEES to the member boards. If there is a change in the exam scores within a year of the date NCEES releases the examination results roster to the member boards, then NCEES will notify the member board only if the change in the exam scores alters a candidate's status from fail to pass. NCEES reserves the right to notify the member boards at any time if it learns that a candidate engaged in any improper conduct relating to the exam on which the score was obtained or took any action that jeopardized the security of any other NCEES exam or exam administration.

C. Exam Irregularities

All NCEES exam irregularities should be evaluated by NCEES with regards to invalidation of exam results. If a candidate fails to comply with the conditions stated in the *NCEES Examinee Guide*, NCEES shall have the authority to invalidate exam results and, furthermore, shall have the authority to suspend a candidate's ability to take an NCEES examination for up to three years. If deemed appropriate, NCEES shall also have the right to pursue additional restrictions on future testing, civil remedies, and/or criminal remedies.

NCEES will notify the member board selected by the examinee of the specific terms and reasons for the invalidation and/or ban. NCEES will update the examinee's account to make this information available to all member boards.

If a member board objects to NCEES' decision to ban an examinee's registration, NCEES will update the examinee's account to allow the examinee to select that member board and register for an examination in accordance with the terms set forth by that member board.

D. Structural Engineering Examinations

For the PE Structural examination, a candidate may sit for either component in separate exam administrations but must receive acceptable results on both components within a five-year period in order to pass the examination.

A component results notice will be transmitted to the member board for each administration in which a candidate takes a component. Receiving an acceptable result on only one 8-hour component shall not be sufficient for any licensure purposes. After a candidate has received an acceptable result on both components, an examination pass notice will be transmitted to the member board to indicate that the candidate has passed the PE Structural examination.

E. Release to Universities and Colleges

NCEES may provide directly to a university or college FE or FS examination data that will help measure learning outcomes of the total engineering or surveying education.

EAP 9 Providing Examination Results for Licensing by Comity

When examination results are requested for purposes of licensing by comity, member boards should report results provided by NCEES.

EAP 10 NCEES Examinations Offered at Foreign Sites

A. Contracting with Foreign Entities

The chief executive officer is authorized to enter into discussions with foreign entities concerning the administration of NCEES examinations to examinees via computer-based testing (CBT). Any agreement resulting from such discussions requires the approval of the NCEES board of directors.

B. Minimum Criteria

For any approved agreement, NCEES will establish minimum criteria for examinees of the foreign entity that are in general conformance with the existing NCEES *Model Law* and *Model Rules*. Such agreements shall require that any additional costs to NCEES to administer the exams shall be reimbursed by the foreign entity and that CBT examinations shall be administered in accordance with the NCEES examinee testing agreement.

C. Use of Examination Results for Licensure

Results of the examinations may be used to assist examinees interested in applying for licensure as a professional engineer or surveyor with an NCEES member board. NCEES makes no representations that passing such exams will qualify the examinees for licensure in any NCEES member board jurisdiction. The results may also be used as an outcomes assessment tool to assist in measuring the outcomes of foreign-based ABET-accredited programs.

D. Restriction on Use of Examination Results

Examinee performance data from examinations provided to a foreign entity shall not be included in exam evaluation or development, used to establish cut scores, or included in exam result statistics for NCEES jurisdictions. Examinee performance data from exams provided to a foreign entity may be evaluated and reported separately.

E. Release of Examinee Performance Data

NCEES may release examinee performance data to an ABET-accredited foreign educational program or to the foreign governing body or professional organization as provided in the contract or as approved by the board of directors.

F. Other Foreign Offerings

The chief executive officer is authorized to approve other foreign sites without foreign entity involvement for use by U.S. military personnel and their spouses and by other individuals approved by the chief executive officer.

EAP 11 Security and Administrative Procedures

Testing services shall follow procedures as prescribed by the NCEES Security and Administrative Procedures Manual.

All proctors participating in the administration of NCEES pencil-and-paper examinations shall be supplied with written examination administration and security procedures and instructions prior to each examination in sufficient time to address any questions and shall submit written affirmation that they have reviewed these procedures and instructions.

EAP 12 Exam Administration Audits

CBT examination forensics, including a secret shopper-type program (which shall include a person who is requested to take the exam at a test center to verify quality assurance of the examination process), may be performed in accordance with the vendor-NCEES contract. Secret shopper exposure to NCEES examination content is restricted to an NCEES staff member or a licensed engineer or surveyor who has already passed the appropriate NCEES exam.

EAP 13 Proctors for Administration of Examinations

Any person who teaches a refresher course or is actively involved in preparation of non-NCEES-sponsored review material for an NCEES examination shall not serve as a proctor for any NCEES examination.

FINANCIAL POLICIES (FP)

FP 1	Council Funds
FP 2	Auditor's Report
FP 3	Travel Expenses
FP 4	Annual Business Meeting Registration Fees
FP 5	Guests of Annual Business Meeting
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FP 7	Membership Fees
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FP 10	Accounts Receivable
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FINANCIAL POLICIES

FP 1 Council Funds

- A. NCEES shall maintain operating accounts and operating reserve accounts with account balances in the aggregate sufficient to manage the day-to-day financial obligations of the Council.
- B. NCEES shall maintain long-term and short-term investments in accordance with the investment guidelines reviewed and approved at least annually by the board of directors.
- C. The reserve funds (current tangible assets plus tangible marketable long-term investments minus current liabilities) should be accumulated to and maintained at a level sufficient for each of the following:
 - 1. A designated reserve equal to a minimum amount of 100 percent of the annual operating budget
 - 2. A designated exam breach reserve equal to the computed cost of a probable or potential exam breach based on the current approved item replacement costs
 - 3. A data breach reserve equal to the anticipated costs of such an incident, including lost revenue during recovery, less insurance provisions
 - 4. A building reserve for long-range capital improvements and replacements for the NCEES headquarters building

Reserve funds in excess of the reserves stated above may be designated by the board of directors for other NCEES mission advancement initiatives or capital projects. If the reserve funds fall below the reserve levels stated above, the Council shall strive to correct the situation. All reserves shall be reviewed annually by NCEES staff and presented to the board of directors and the Committee on Finances.

D. The NCEES board of directors shall have the authority to make discretionary contributions for funding requests to outside nonprofit organizations. The total amount of all discretionary contributions that the NCEES board of directors is authorized to make may not exceed \$500,000 per fiscal year. Any funding above \$500,000 is required to be voted on by the full Council.

FP 2 Auditor's Report

The treasurer shall present the audited financial report at the first board of directors meeting following completion of the annual audit. The board of directors shall advise the Council of the findings of the auditor's report in a timely manner.

FP 3 Travel Expenses

NCEES shall budget for and pay travel expenses for NCEES-funded meeting attendees as described below. NCEES shall also waive the registration fee for NCEES-funded attendees to the annual meeting and zone interim meetings but shall not pay the cost of optional functions that are not included in the registration fee. All authorized travel and reimbursements shall be in accordance with the NCEES travel policy. Unbudgeted international travel shall require authorization by the board of directors.

A. Meetings representing NCEES

- 1. Members of the board of directors, committee members, and consultants as authorized by the president. The president and the president-elect have the discretion to purchase business class airfares for trips greater than or equal to 5 hours of total in-air flying time each way to mitigate the stress of frequent travel. If no business class is available, first class may be considered.
- 2. Council staff as approved by the CEO

B. NCEES annual business meetings

- Members of the current NCEES board of directors, incoming vice presidents, nominees for the incoming NCEES president-elect and treasurer positions, and past presidents. Registration fees shall be waived for a guest of each.
- 2. A minimum of three funded delegates from each member board as specified by the member board. Member boards must meet the *Bylaws* requirements for voting to receive the benefits of funded delegates.
- 3. Member board members who are attending their first annual meeting and who have been appointed to their board within 24 months before the annual meeting
- 4. The designated member board administrator (MBA) of each member board. When an MBA represents more than one board, the funding shall be for the designated MBA only and not for the assistant MBA or for member board staff. Member boards must meet the *Bylaws* requirements for voting to receive the benefits of a funded MBA.
- 5. Chairs of NCEES standing committees and task forces
- 6. NCEES service award recipients. Registration fees shall be waived for a guest of each.
- 7. Zone assistant vice presidents and zone secretary-treasurers
- 8. The NCEES representative to the ABET board of delegates, the alternate NCEES ABET representative, and the commissioners on the Engineering Accreditation Commission of ABET, the Engineering Technology Accreditation Commission of ABET, and the Applied and Natural Science Accreditation Commission of ABET

C. Zone interim meetings

- 1. Members of the current NCEES board of directors and NCEES past presidents
- 2. Zone assistant vice presidents and zone secretary-treasurers to their respective zone meeting
- 3. A minimum of three funded delegates from each member board as specified by the respective member board. The delegates must be members of the member board or associate members. Boards must meet the *Bylaws* requirements for voting to receive the benefits of funded delegates.
- 4. The designated MBA of each member board. When an MBA represents more than one board, the funding shall be for the designated MBA only and not for the assistant MBA or for member board staff. Member boards must meet the *Bylaws* requirements for voting to receive the benefits of a funded MBA.
- 5. Zone service award recipients to their respective zone meeting

D. Board Presidents' Assembly

- 1. Members of the current NCEES board of directors
- 2. Each member board president or his or her designated board member representative
- 3. The designated MBA of each member board. When an MBA represents more than one board, the funding shall be for the designated MBA only and not for the assistant MBA or for member board staff.

E. Approved MBA meetings

- 1. Members of the current NCEES board of directors as authorized by the president
- The designated MBA of each member board. When an MBA represents more than one board, the funding shall be for the designated MBA only and not for the assistant MBA or for member board staff.

FP 4 Annual Business Meeting Registration Fees

Registration fees at the annual business meeting shall represent only those costs directly attributable to the annual business meeting.

FP 5 Guests of Annual Business Meeting

The president is authorized to issue invitations to professional society presidents or presidents-elect, to professional society executive directors, to International Affiliate Organizations, and to Participating Organizations to attend the annual business meeting as guests of the Council. All or part of the registration and activity fee shall be waived.

FP 6 Examination Prices

The Committee on Finances shall annually review all examination prices and propose any changes to examination prices for Council vote at the annual meeting. The current exam prices are as follows:

-	. .	Date	Date	Future	Date	Date
Examination	Price	Approved	Effective	Price	Approved	Effective
Computer-based FE*	\$175	8/16	1/18	\$225	8/22	1/24
Computer-based FS*	\$175	8/16	1/18	\$225	8/22	1/24
Computer-based PE*	\$375	8/16	1/18	\$400	8/22	1/24
Computer-based PS*	\$300	8/15	10/16	\$375	8/22	1/24
Pencil-and-paper PE Structural Lateral Forces component**	\$400	8/09	4/11	_	_	_
Pencil-and-paper PE Structural Vertical Forces component**	\$400	8/09	4/11	_	_	_
Computer-based PE Structural exams***						
Vertical breadth section	_	_	_	\$350	8/22	1/24
Vertical depth section	_	_	_	\$350	8/22	1/24
Lateral breadth section	_	_	_	\$350	8/22	1/24
Lateral depth section	_	_	_	\$350	8/22	1/24

All examinees are required to pay NCEES directly; this requirement includes both computer-based and pencil-and-paper examinations.

^{*}Price includes exam development, scoring, and computer-based exam administration.

^{**}Price includes exam development, scoring, shipping, and materials. Exam administration fees will remain separate for pencil-and-paper exams.

^{***}The current PE Structural exam will be transitioning from a pencil-and-paper format consisting of a vertical section and a lateral section given on two separate days to a computer-based exam consisting of vertical and lateral sections with separate breadth and depth components for each section in four separate exam seatings. Price includes exam development, scoring, and computer-based exam administration of each section.

FP 7 Membership Fees

All membership fees will be reviewed and approved by the Council. The current approved schedule is included here for reference.

Member boards	Current fee	Date effective
1 through 200 registrants	\$750 annually	01/01/18
201 through 500 registrants	\$2,600 annually	01/01/18
501 or more registrants	\$6,500 annually	01/01/07

FP 8 Unbudgeted Expenditures

Necessary expenditures to carry on the business of the Council that are not in the current operating or capital budget shall have prior approval of either the chief executive officer, the president, or the treasurer for amounts up to \$25,000. Expenditures of more than \$25,000 and up to \$50,000 shall have prior approval of two of the above persons, and expenditures in excess of \$50,000 shall have the prior approval of the board of directors. Any expenditures not in the current budget shall be reviewed by the board of directors at its next meeting.

FP 9 Financial Impact Statements

All proposals requiring the board of directors and Council approval must include a financial impact statement if such proposals will change the approved, proposed, or forecasted operating or capital budgets. The NCEES chief financial officer shall be consulted in the development of the estimated costs.

FP 10 Accounts Receivable

NCEES will actively pursue the collection of all accounts receivable. Accounts shall be considered delinquent after 30 days, and reasonable interest charges may be assessed in accordance with approved operating procedures. Accounts that persist in nonpayment may have privileges suspended.

FP 11 Exam Breach

The board of directors shall review and approve the replacement cost for exam items at least annually, to be applicable in the event of an exam breach covered by this policy. Except as otherwise expressly provided in this policy, the exam delivery contractor shall reimburse NCEES for the then-current replacement costs of all exam items whose security is compromised due to negligence while in the contractor's custody. Whether an exam breach has occurred for purposes of this policy shall be determined by the NCEES board of directors following an investigation of the incident and evaluation of all information submitted by the exam delivery contractor, input from third-party consultants if deemed appropriate, and recommendations from a duly constituted NCEES breach committee.

PROFESSIONAL POLICIES (PP)

PP 1	Publications
PP 2	Uniform Qualifications for Licensure
PP 3	NCEES Credentials Evaluations Program
PP 4	NCEES Records Program
PP 5	NCEES Model Law Designations
PP 6	Expedited Licensure by Comity
PP 7	Firm Mobility
PP 8	International Relations

PROFESSIONAL POLICIES

PP 1 Publications

NCEES shall publish models, manuals, and guidelines for use by member boards.

PP 2 Uniform Qualifications for Licensure

NCEES promotes uniform standards for licensure based on education, experience, and examination.

NCEES promotes the assessment of qualifications of each applicant for licensure according to uniform standards as provided by NCEES examinations and by NCEES guidelines for evaluating education and experience.

PP 3 NCEES Credentials Evaluations Program

NCEES will maintain a Credentials Evaluations program to assist member licensing boards and applicants with licensing of applicants.

PP 4 NCEES Records Program

NCEES will maintain a Records program to assist licensees and member boards with licensing by comity.

PP 5 NCEES Model Law Designations

The NCEES Records program requires the delineation of the requirements for Model Law Engineer, Model Law Surveyor, and Model Law Structural Engineer. These designations may be used by state licensing boards to expedite comity applications.

The requirements for Model Law designations may only be amended after review by an appropriate standing committee or task force and ratification by the Council.

The designations are defined as follows:

A. Model Law Engineer

The term "Model Law Engineer" refers to an individual who has obtained licensure as a professional engineer in at least one jurisdiction as the result of satisfying the following conditions:

- 1. Earns one of the following:
 - a. A degree in engineering from a bachelor's program accredited by the Engineering Accreditation Commission of ABET (EAC/ABET)
 - b. A degree in engineering from an EAC/ABET-accredited master's program
- 2. Passes the NCEES Fundamentals of Engineering (FE) examination and an NCEES Principles and Practice of Engineering (PE) examination
- 3. Meets one of the following experience requirements:
 - a. Completes 4 years of acceptable engineering experience after confirmation of a bachelor of science degree in an engineering program accredited by EAC/ABET
 - b. Completes 3 years of acceptable engineering experience after confirmation of a bachelor of science degree in engineering from an EAC/ABET-accredited engineering program and holds a master's degree in engineering
 - c. Completes 3 years of acceptable engineering experience after confirmation of a master's degree in engineering from an EAC/ABET-accredited engineering program
 - d. Completes 2 years of acceptable engineering experience and has an earned doctoral degree in engineering from an institution that offers EAC/ABET-accredited programs

4. Has a record clear of disciplinary action

For Model Law Engineer status to continue after such has been designated by NCEES, the individual must meet the requirements provided in Definition D, Continuance of Model Law Engineer, Model Law Surveyor, and Model Law Structural Engineer Status.

B. Model Law Surveyor

The term "Model Law Surveyor" refers to an individual who has obtained licensure as a professional surveyor in at least one jurisdiction as the result of satisfying the following conditions:

- 1. Earns one of the following:
 - a. A degree from a surveying engineering bachelor's program accredited by the Engineering Accreditation Commission of ABET (EAC/ABET)
 - b. A degree from a surveying and geomatics bachelor's program accredited by the Applied and Natural Science Accreditation Commission of ABET (ANSAC/ABET)
 - c. A degree from a surveying and geomatics bachelor's program accredited by the Engineering Technology Accreditation Commission of ABET (ETAC/ABET)
- 2. Passes the NCEES Fundamentals of Surveying (FS) examination and the NCEES Principles and Practice of Surveying (PS) examination
- 3. Completes 4 years of acceptable surveying experience after confirmation of a bachelor of science degree in a surveying/geomatics program accredited by ANSAC/ABET, EAC/ABET, or ETAC/ABET, which may include up to 1 year of experience for a graduate surveying/geomatics degree
- 4. Has a record clear of disciplinary action

The jurisdiction may also require a Model Law Surveyor to pass its state-specific examination for surveyors. For Model Law Surveyor status to continue after such has been designated by NCEES, the individual must meet the requirements provided in Definition D, Continuance of Model Law Engineer, Model Law Surveyor, and Model Law Structural Engineer Status.

C. Model Law Structural Engineer

The term "Model Law Structural Engineer" refers to an individual who has obtained licensure in at least one jurisdiction as the result of satisfying the following conditions:

- 1. Earns one of the following:
 - a. A degree in engineering from a bachelor's program accredited by EAC/ABET
 - b. A degree in engineering from a master's program accredited by EAC/ABET
- 2. Passes a minimum of 18 semester (27 quarter) hours of structural analysis and design courses. At least 9 of the semester (14 quarter) hours must be structural design courses.
- 3. Passes the NCEES FE examination
- 4. Passes one of the following:
 - a. 16 hours of NCEES structural examinations, 8 hours of which were from the SE II taken prior to January 1, 2011
 - b. 16-hour state-written structural examinations taken prior to 2004
 - c. NCEES SE II plus 8-hour state-written structural examinations taken prior to January 1, 2011
 - d. NCEES PE Structural examination taken after January 1, 2011
- 5. Meets one of the following experience requirements:
 - a. Completes 4 years of acceptable structural engineering experience after confirmation of a bachelor of science degree in an engineering program accredited by EAC/ABET

- b. Completes 3 years of acceptable structural engineering experience after confirmation of a bachelor of science degree in engineering from an EAC/ABET-accredited engineering program and holds a master's degree in engineering that includes at least 6 semester (9 quarter) hours of structural engineering (in addition to the 18 hours noted above)
- c. Completes 3 years of acceptable structural engineering experience after confirmation of a master's degree in engineering from an EAC/ABET-accredited engineering program that includes at least 6 semester (9 quarter) hours of structural engineering (in addition to the 18 hours noted above)
- d. Completes 2 years of acceptable structural engineering experience and has an earned doctoral degree in engineering focused on structural engineering from an institution that offers EAC/ABET-accredited programs
- 6. Has a record clear of disciplinary action

For Model Law Structural Engineer status to continue after such has been designated by NCEES, the individual must meet the requirements provided in Definition D, Continuance of Model Law Engineer, Model Law Surveyor, and Model Law Structural Engineer Status.

D. Continuance of Model Law Engineer, Model Law Surveyor, and Model Law Structural Engineer Status

Any licensed professional who meets the criteria of the Model Law Engineer, Model Law Surveyor, or Model Law Structural Engineer shall continue to be designated Model Law Engineer, Model Law Surveyor, or Model Law Structural Engineer, even if these definitions are revised at a later date, provided that

- 1. The licensee has continually maintained his or her status as Model Law Engineer, Model Law Surveyor, or Model Law Structural Engineer
- 2. The licensee is not on revoked status or has not retired his or her license
- 3. The licensee has a record clear of disciplinary action and maintains a record clear of disciplinary action

PP 6 Expedited Licensure by Comity

NCEES promotes expedited licensure by comity by all member boards for any professional engineer, structural engineer, or professional surveyor with a current Council Record who has been determined by NCEES to be a Model Law Engineer, Model Law Structural Engineer, or Model Law Surveyor, respectively.

PP 7 Firm Mobility

NCEES promotes the adoption by all member boards of straightforward uniform standards for authorization to practice engineering and/or surveying through firms.

PP 8 International Relations

NCEES will be actively involved in matters relating to the foreign qualifications of professional engineers and surveyors. The long-range objectives will be

- A. To expand the understanding of the licensure and regulation of professional engineers and professional surveyors on an international basis through participation in relevant international meetings and establishing NCEES in a leadership role at such meetings (at relevant international meetings)
- B. To promote and establish a program for maintaining relationships with foreign licensure authorities

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POSITION STATEMENTS

PS 1 Licensure

In the interest of safeguarding the public, NCEES strongly promotes the concept that all qualified individuals who practice or desire to practice engineering or surveying seek licensure, whether exempted by statute or regulation or not. NCEES supports the premise that an applicant seeking original licensure seek such licensure in the jurisdiction in which he or she resides or practices. NCEES also supports the premise that a licensee maintain licensure in the jurisdiction of the business address of practice and in jurisdictions in which the licensee exercises responsible charge of engineering and surveying work.

PS 2 Certification of Engineers and Surveyors

NCEES does not oppose those programs wherein professional organizations and societies recognize or certify their members for any purpose, provided such certification does not imply legal licensure. NCEES opposes certification by any organization or society wherein the purpose of such certification is to substitute for legal licensure as established by the statutes of the various jurisdictions.

PS 3 Engineering Curricula Accreditation

NCEES recommends that engineering programs be accredited only by the Engineering Accreditation Commission of ABET (EAC/ABET).

- PS 4 Applicants with Non-EAC/ABET-Accredited Baccalaureate Degrees Individuals with the following qualifications may apply for the licensure process.
 - Graduates of non-EAC/ABET-accredited baccalaureate programs in engineering or graduates of nonengineering baccalaureate programs who have earned a master's degree or doctoral degree in engineering. In both of these cases, the official degree program transcripts of applicants must be evaluated through a board-approved process, and any deficiencies found as a result of the evaluation must be corrected. Deficiencies in engineering courses, including engineering design, must be remediated by taking courses offered by an EAC/ABET-accredited engineering degree program.
 - Graduates of EAC/ABET-accredited master's programs in engineering. In this case, no remedial
 work is needed; a criterion for EAC/ABET accreditation of master's-level programs is fulfillment of
 the EAC/ABET baccalaureate-level general criteria.

A graduate degree that is used, in part or in whole, to satisfy education requirements cannot be applied for experience credit toward licensure.

PS 5 Member Board Representatives on ABET Visitations

NCEES supports and endorses the role of a member of a board of licensure as an observer on an ABET program evaluation. NCEES will publish the *ABET Guide for Observers on Accreditation Visits* on its website to assist ABET and the board member in this endeavor.

PS 6 Examination of Engineering Students

NCEES recommends that all schools with EAC/ABET-accredited engineering programs require students in such programs to take and make a good-faith effort to pass the NCEES Fundamentals of Engineering examination prior to their anticipated date of graduation. Deans, department heads, and faculty members are encouraged to provide FE exam review sessions to assist students in preparing for the exam.

PS 7 Bachelor of Science Degree in Engineering Technology

NCEES recommends that the boards of licensure, whose statutes do not otherwise prohibit, require any applicant who has a degree in engineering technology, who applies for engineering licensure in any jurisdiction of the United States, and who has not previously been licensed to practice by one of the boards of licensure be required to first demonstrate that he or she possesses at least a four-year bachelor of science degree in engineering technology, acquired through the successful completion of an ETAC/ABET-accredited program or through a board-approved program.

PS 8 Bachelor of Science Degree in Engineering

NCEES recommends that the boards of licensure require any applicant who applies for engineering licensure in any jurisdiction of the United States and who has not previously been licensed to practice by one of the boards of licensure be required first to demonstrate that he or she possesses at least a four-year bachelor of science degree in engineering, acquired through the successful completion of an EAC/ABET-accredited program or through a board-approved program.

PS 9 Bachelor of Science Degrees in Surveying Engineering, Surveying and Mapping, and Geomatics NCEES recommends that the boards of licensure require any applicant who applies for surveying licensure in any jurisdiction of the United States and who has not previously been licensed to practice by one of the boards of licensure for professional surveyors be required to first demonstrate that they possess at least a four-year bachelor of science degree in surveying, acquired through the successful completion of an ABET-accredited surveying program or through a board-approved program.*

NCEES expects all of its examination development to follow current *Model Law* and *Model Rules*.

NCEES expects all of its examination development to follow current *Model Law* and *Model Rules*. Model Law Surveyors should be utilized to prepare FS examinations, and Model Law Surveyors should be utilized to establish cut scores for FS examinations.

The content of the FS examination shall test the knowledge obtained in a baccalaureate surveying degree that will enable the individual to protect the public.

* Refer to the NCEES position paper "Benefits of a Four-Year Degree Requirement for Surveying Licensure" (2011), available as a PDF on nees.org under MyNCEES.

PS 10 Continuing Professional Competency

NCEES endorses the establishment of uniform continuing professional competency (CPC) requirements for licensed professional engineers and surveyors to safeguard the health, safety, and welfare of the public by requiring licensees to remain competent within their profession. Uniform requirements benefit licensees by facilitating licensure renewal and supporting mobility across jurisdictions.

CPC should be focused on the advancement, extension, and improvement of the scientific knowledge and professional skills of the licensee and on the enhancement of professional ethics. CPC should be structured in a way that demonstrates compliance but also recognizes the autonomy and strong ethical standards of licensees.

Licensees are expected to meet the CPC requirements of the jurisdictions in which they have been granted a license by comity, reciprocity, or endorsement. Applicants for a license by comity, reciprocity, or endorsement who are licensed in a jurisdiction without equivalent CPC requirements should not be denied an initial license for that reason.

Because many engineers and surveyors are licensed in multiple jurisdictions, uniformity of CPC requirements among licensing jurisdictions that mandate CPC is imperative to simplify the licensure-renewal process, to enhance the mobility of licensees, to facilitate the recognition of CPC by multiple jurisdictions, and to ensure the viability of continuing professional competency. NCEES encourages licensing boards to follow the NCEES *Model Rules* as outlined in the NCEES *Continuing Professional Competency Guidelines* when adopting CPC requirements. NCEES encourages boards to allow their

licensees to satisfy either the CPC requirements of the board or the NCEES CPC Standard. Doing so will promote licensure mobility, especially with boards whose CPC requirements differ from the *Model Rules*. Licensees are encouraged to use the NCEES CPC Registry to document their CPC activities; this may facilitate board reviews or audits.

NCEES encourages the efforts of professional and technical societies, educational programs, and industry in the development of continuing education opportunities to maintain and enhance the competency of engineers and surveyors.

PS 11 Licensure Regulation Based Upon Non-Practice Criteria

NCEES opposes statutes and regulations that would require jurisdictions to adopt procedures under which the jurisdictions' licensing boards may not issue or renew licenses of individuals who are delinquent in domestic obligations or individuals who are the subject of outstanding failure-to-appear warrants. Accordingly, NCEES encourages its member boards to oppose statutes and regulations based upon non-practice criteria that would adversely impact professional licensure.

PS 12 Licensing of Engineering Faculty

Faculty members who practice engineering as defined by jurisdictional statutes must be licensed. NCEES encourages all faculty members who teach advanced engineering courses, or who are in responsible charge of engineering curricula or engineering research, to be licensed professional engineers.

PS 13 NCEES-Recommended Education/Experience Guidelines for P.E. Licensing

4-Year or More Degree	Years of Experience Required	Comments	
EAC/ABET accredited	4	NCEES PS 8	
Canada (CEAB) accredited	4		
Non-EAC/ABET or non-CEAB accredited 4 or more		Education should be evaluated using the NCEES Engineering Education Standard.	
Recommendations below are only for member boards that must evaluate applicants who do not meet the minimum education of an EAC/ABET or equivalent degree as specified in PS 8.			
ETAC/ABET accredited	6	NCEES PS 7	
Related science*	8	Education should be evaluated using the NCEES Engineering Education Standard.	
No degree	20	Needed by some boards	

^{*}A related science curriculum from a school or college approved by the board is defined as a four-year curriculum leading to a bachelor of science degree in chemistry, physics, mathematics, or similar science curriculum.

PS 14 FE or FS Examination as an Outcomes Assessment Tool

- A. Engineering and surveying programs should strongly consider using the FE or FS exam topic-level performance data as part of their program assessment, with proper regard for the caveats described.*
- B. Programs that will gain the most from using the FE or FS exam as an assessment tool are those programs in which all students are required to take the FE or FS exam, all students are required to take the discipline-specific exam (applicable to the FE exam only), the faculty establish specific goals for their program, and comparisons are made with peer institutions that have similar requirements.

- C. Member boards are encouraged to sponsor or otherwise facilitate use of the FE and FS examination results for internal use of institutional outcomes assessment, but such use should not subordinate or endanger the function, concept, or security of the FE or FS examination's primary purpose as the first examination for professional licensure, in keeping with the underlying mission of safeguarding the health, safety, and welfare of the public.
- D. Institutions must remember that the primary purpose of the FE or FS is to assess minimal technical competencies. Other assessment tools need to be used to assess higher-level theories or critical thought that might be the focus of some portion of their program.
- E. The results of each FE or FS exam should be sent directly to institutions for their use. NCEES may provide directly to a university or college additional FE or FS examination data that will help measure learning outcomes of the total engineering or surveying education.

*Refer to *Using the Fundamentals of Engineering (FE) Examination as an Outcomes Assessment Tool*, National Council of Examiners for Engineering and Surveying, March 2019.

PS 15 Electronic Technology

The use of digital signatures has dramatically changed the practice of producing, submitting, and reproducing reports, drawings, and specifications by practitioners, but the need to safeguard the health, safety, and welfare of the public has not changed.

The use of digital signatures can adequately safeguard the public if the appropriate guidelines are followed. Electronic technology must be encouraged in an open and unrestrictive environment. It is the responsibility of the member boards and other jurisdictions to encourage the use of digital signature technology to further safeguard the public from the current common practice of delivering documents electronically with no security or protection. Refer to *Model Rules* 240.20, Seal on Documents, for further information.

PS 16 Expedited Licensure by Comity

In order to facilitate the mobility of qualified professionals among jurisdictions, NCEES supports and promotes expedited licensure by comity by all member boards for any professional engineer, structural engineer, or professional surveyor with a current Council Record who has been determined by NCEES to be a Model Law Engineer, Model Law Structural Engineer, or Model Law Surveyor, respectively.

NCEES supports and promotes the adoption of procedures by all jurisdictions to facilitate and achieve licensure by comity for professionals who have been designated by NCEES to be Model Law Engineers, Model Law Structural Engineers, or Model Law Surveyors. NCEES also supports and promotes that this licensure by comity be approved in any jurisdiction within one week of receipt of both the completed application and the Council Record as well as the passing of any required jurisdiction-specific exams, provided that the jurisdiction statutes do not prohibit such expedited licensure by comity.

NCEES is committed to working with individual member boards to maximize the full applicability and acceptance of the Council Records program for engineers and surveyors in all jurisdictions.

PS 17 Firm Mobility

In order to facilitate the ability of firms to practice their profession in all jurisdictions, NCEES supports and promotes the adoption of straightforward uniform standards for authorization to practice engineering and/or surveying through firms. Uniform standards should address but not be limited to the following:

- A. NCEES opposes any requirement that a firm must have a physical office in each jurisdiction of practice.
- B. NCEES supports the requirement that a firm must have professionals appropriately licensed by the jurisdiction in responsible charge of the services being offered.

C. NCEES opposes any requirement that officers, owners, or their equivalent must be licensed in the jurisdiction in order for the firm to practice, or offer to practice, provided that appropriately licensed professionals are in responsible charge of the services being offered.

PS 18 Education

The primary role of NCEES is to facilitate professional licensure of engineers and surveyors and uphold standards necessary to safeguard the health, safety, and welfare of the public. The Council strongly advocates quality education to prepare individuals to become engineers and surveyors, including K–12 and university education, as well as continued professional competency for licensees. The Council supports efforts to develop educational standards required for licensure and to expeditiously disseminate those standards to its member boards.

The educational objectives of NCEES are to

- A. Advocate quality education that adequately prepares candidates for licensed professional practice, which includes the following:
 - 1. K-12 education, as it informs students about the fields of engineering and surveying and prepares them for university study
 - 2. Higher education, which prepares individuals for licensure and professional practice
- B. Recognize institutional indicators of quality education, which may include the following:
 - 1. Program educational objectives and outcomes that include a focus on preparing students for licensed professional practice as described in paragraph A above
 - 2. Program educational objectives and outcomes that are assessed in part by nationally validated content examinations
 - 3. Curriculum requirements that equate to the standards for licensure eligibility
- C. Establish program indicators of quality education for licensure eligibility, which include the following:
 - 1. Nationally validated assessment methods
 - 2. Education standards that prepare students for licensed professional practice
 - 3. Compliance with psychometric analyses that determine pass rates on nationally validated content examinations
- D. Assist member boards in evaluating the indicators and metrics as established for licensure eligibility.

PS 19 Examination Security

The primary goal of NCEES is to advance and facilitate professional licensure of engineers and surveyors. The Council's role is to advocate safeguarding the health, safety, and welfare of the public and to advance examination security for that purpose. To this end, it is the responsibility of the Council to promulgate and maintain standards and appropriate policies for examination security and administration to ensure fair and uniform administration and to expeditiously disseminate those standards and policies to its member boards.

The NCEES examination security objectives are to

- A. Develop and publish examination administration policies, procedures, and services that support the licensure process by
 - 1. Mandating fair and uniform testing conditions and ensuring fairness for all candidates, including but not limited to ADA candidates
 - 2. Following industry standards regarding examination administration

- 3. Preventing or limiting inappropriate exposure of examination items through
 - a. Loss or theft
 - b. Misuse or inappropriate distribution
 - c. Violation of copyright of test items
- B. Define procedures that accomplish the following:
 - 1. Evaluate potential breaches and risk factors
 - 2. Establish appropriate responses to breaches
 - 3. Provide clear guidelines to investigate and/or litigate violations
 - 4. Mitigate the risk and/or confine loss
 - 5. Provide means for member board and/or appropriate committee oversight
 - 6. Restrict access to examination items and enhance prevention of loss or theft
 - 7. Protect examination confidentiality in the exam development process
- C. Offer examination administration services that
 - 1. Define and operate under appropriate standard of care guidelines
 - 2. Audit services to meet standard of care guidelines
 - 3. Develop and maintain a training and quality-assurance program
 - 4. Evaluate all external service providers for security measures, including but not limited to shipping, printing, and facilities leasing
 - 5. Evaluate new technology, methods, and processes for improvement and enhancement of security
 - 6. Provide additional services to member boards for secure test administration, including but not limited to, registration, database management, records management, and score reporting
- D. Provide information to member boards about security violations, potential risks of security issues, financial impact, and regularly updated policies and procedures.

PS 20 International Activities

- A. The Council should continue to offer its examinations at foreign sites within the guidelines of EAP 10.
- B. NCEES shall inform foreign jurisdictions that the qualifications for licensure in the United States are determined by state and territorial jurisdictions based on education, experience, and examination.
- C. NCEES shall emphasize to all national and foreign jurisdictions the importance of licensure in safeguarding the health, safety, and welfare of the public.
- D. NCEES shall stress to all national and foreign jurisdictions the need for the development of a database of their licensing requirements.
- E. NCEES shall encourage the development of globally uniform licensure requirements that meet the international benchmark for independent professional practice established by the International Engineering Alliance *Graduate Attributes and Professional Competencies*. Constraints such as citizenship, residency, establishment of local office, or similar restrictions shall be discouraged.
- F. NCEES shall function as a resource for other nations that desire to establish or improve their education, experience, examination, and ethics requirements for licensure to practice engineering and surveying.
- G. NCEES shall work with foreign jurisdictions toward mutual development of international compliance procedures for the professional practice of engineering and surveying.

H. NCEES shall work with foreign jurisdictions to emphasize the importance of current international intellectual property protection.

PS 21 Fire Protection

NCEES recognizes that fire protection plays an important role in safeguarding the health, safety, and welfare of the public. NCEES also recognizes that the application of science and engineering principles to safeguard life, property, income, and the environment from the effects of fires, explosions, and related hazards to be the practice of fire protection engineering.

NCEES recommends that member boards actively pursue enforcement of state statutes, rules, and regulatory codes, with local permitting authorities having jurisdiction regarding the analysis and application of fire protection engineering.

NCEES recognizes that many states and territories do not license professional engineers by engineering discipline and that various aspects of fire protection engineering may be performed by licensed professionals (architects or engineers) with experience in the analysis, design, and application of fire protection systems. NCEES also recognizes that there are differences in state statutes, rules, and regulatory codes among various states and territories and that these individual states and territories may establish thresholds of system type, complexity, size, or value that exempt specific fire protection systems below a minimum threshold from professional engineering, provided that these fire protection systems are designed and installed by a contractor or technician who is performing this work under a license or certification specifically for these fire protection systems.

For fire protection systems above or below the minimum threshold of system type, complexity, size, and value for professional engineering, the following are recommended whenever a professional engineer engages in the practice of fire protection engineering:

- A. All final engineering documents should be design documents prepared and sealed by a licensed professional engineer. The contents of the engineering documents should be determined by the licensed professional engineer based on their education and experience; should comply with state statutes, rules, and regulatory codes; and should be acceptable to all authorities having jurisdiction.
- B. All fire protection installation shop drawings should be reviewed by the licensed professional engineer in order to verify compliance with the engineer's design and specifications prior to submission of the shop drawings to any interested authority.
- C. The licensed professional engineer should provide oversight of the installation to verify compliance with contract requirements.

PS 22 Design-Build

NCEES recognizes design-build as a growing and viable project-delivery method.

A variety of organizational arrangements can be used to deliver design-build services. It is the position of NCEES that the organizational arrangements for each project be disclosed to the owner/client at the time of the offering of the services. If engineering or surveying services are included in a design-build project, it is the position of NCEES that such services fall under the practice of engineering or surveying and require licensed professionals to be in responsible charge of that portion of the work.

NCEES does not support design-build project delivery in a manner that compromises the role of the engineer or surveyor in maintaining responsible charge of the engineering or surveying work.

PS 23 Foreign Professional Engineers Applying for Licensure in Jurisdictions of the United States It is the position of NCEES that member boards of the Council should provide consideration of equivalent qualifications for professional engineers licensed by or otherwise approved for professional practice in a foreign jurisdiction.

PS 24 Education in Breadth of Practice

Graduates of EAC/ABET-accredited engineering programs should be knowledgeable in and able to demonstrate an awareness of the breadth and diversity of engineering practice, which includes licensed practice before the public and in industrial, governmental, and educational settings. Engineering in each of these settings involves direct or indirect responsibility for safeguarding the health, safety, and welfare of the public and is subject to a common set of ethical expectations and codes of conduct. An engineer's career is likely to include practice in some or all of these areas, and this diversity of potential practice should therefore be reflected in an engineer's education.

PS 25 Online Education

NCEES recognizes that online instruction, either in whole or as a supplement to in-person presentation, can be an effective delivery method for engineering and surveying education and encourages development of methods and techniques that will result in accredited programs that meet requirements for licensure.

PS 26 Professional Society Assistance in Practice Act Revisions

NCEES recognizes the difficulties faced by member boards attempting to make the necessary legislative changes to fulfill their charge of safeguarding the health, safety, and welfare of the public. Member boards may lack adequate resources necessary to obtain passage of legislation.

Many professional societies, comprised of individuals directly affected by practice act legislation, are active in the political process. Member boards, whenever possible, should draw on these societies for assistance with the passage of practice act legislation. Consensus, political awareness and experience, manpower, and legislative sponsorship are major elements of success.

A. Consensus

Consensus requires general agreement from affected parties. Professional societies need to be involved in proposed practice act revisions throughout the entire process. Obtaining consensus may require considerable time, but it is essential to the process.

B. Political Awareness and Experience

Professional societies are active politically, often employing lobbyists and utilizing political action committees. The political impact of these organizations may be essential to the passage of practice act legislation.

C. Manpower

Professional societies are comprised of numerous, geographically dispersed members. Some of these members likely have working relationships with state legislators who may be serving on key committees and voting on the practice act legislation. Appropriately timed testimony from these professional society members can be a major benefit toward passage of practice act revisions.

D. Legislative Sponsorship

A professional society may have a member who is a legislator or who has a relationship with a legislator who has an active interest in the practice act legislation. Having the right sponsor to recruit appropriate co-sponsors, work with appropriate committee members, follow the bill through both houses, and withdraw the bill if necessary is vital to passage of appropriate legislation. If possible, the sponsor should be included in the initial consensus process.

PS 27 Certification of Record/As-Built Drawings

NCEES does not consider the representation of what was believed to be constructed to be engineering or surveying work and that to seal such work may be in violation of local and state statutes and rules. However, an engineer or surveyor may be required to seal work not performed under the engineer's or surveyor's direct supervision and control. In such cases, a caveat should be included on sealed record drawings, incorporating, as applicable, the following factors:

- A. The record drawing is a compiled representation of the constructed project.
- B. The sources and the basis of information used in the preparation of the record drawing should be listed.
- C. The record drawing is believed to be correct to the best of the professional's knowledge.
- D. The accuracy of the information cannot be guaranteed.

PS 28 Tower Cranes

NCEES recognizes that the use of tower cranes—including assembly/erection, climbing, dismantling, and hoisting—exposes the public to a level of risk to the health, safety, and welfare of the public.

NCEES recommends that member boards actively pursue enforcement of statutes and rules with local permitting authorities having jurisdiction regarding the engineering supervision over the design and erection procedures related to the foundations of tower cranes.

To implement the above, the following is recommended:

- A. Foundation design documents shall be prepared by a qualified licensed professional engineer or a licensed structural engineer, as required, and the documents are to be sealed by the engineer.
- B. Supervision by a qualified licensed professional engineer or a licensed structural engineer is required in the review of erection of the crane for compliance with the engineer's design and specifications for the tower crane foundations.

PS 29 Commissioning of Engineered Systems

NCEES recognizes commissioning is a field of services provided to validate design concepts and systems operations. A variety of levels of professional expertise, using both licensed and unlicensed professionals, is used to deliver commissioning services.

It is the position of NCEES that commissioning of those systems that are engineered systems falls under the practice of engineering and must be performed under the responsible charge of a professional engineer.

PS 30 Evaluation of Qualifications for non-Model Law Engineers and Surveyors

NCEES recommends that education and experience for non-Model Law license applicants requesting permission to sit for examinations or requesting licensure by comity should be evaluated in accordance with related NCEES position statements and standards.

PS 31 Promotion of Licensure

NCEES is committed to promoting the value of licensure in support of its mission to advance licensure for engineers and surveyors in order to safeguard the health, safety, and welfare of the public.

PS 32 Diversity, Equity, and Inclusion

NCEES is committed to 1) advancing licensure in such a way as to be inclusive of all people for the betterment of engineering and surveying licensure and 2) treating its employees and volunteers of the organization in an equitable and inclusive manner with respect, dignity, and fairness that fosters participation without regard to individual differences. NCEES encourages its member boards to do the same.

PS 33 Framework for Future Engineering Licensure

One of the goals of NCEES is to advance licensure standards for all professional engineers. Those standards describe the technical and professional competency needed to safeguard the health, safety, and welfare of the public. The Council recognizes that future demands for increasing technical and professional knowledge and skills will require the licensure process, including education and experience requirements, to be updated to meet these changing needs and ensure a competent level of professional engineering practice. NCEES supports a licensing framework that covers the life cycle of a professional engineer, with multiple focused pathways to licensure. These pathways include supplemental education focused on depth of technical knowledge and professional practice, a robust and adaptable system for assessment and evaluation, a system of focused and progressive experience, and lifelong learning.

NCEES recognizes that different areas of engineering practice may have differing requirements or paths to demonstrate a competent level of professional knowledge and skills. These future pathways will be developed to address the needs of the various areas of engineering practice as appropriate to safeguard the health, safety, and welfare of the public and support the strength and growth of the engineering profession.

Pathways by which a candidate for licensure as a professional engineer might obtain the body of knowledge needed to meet future education and experience requirements include the following:

- A. A bachelor's degree in engineering or engineering technology
- B. Focused and guided supplemental education requirements prior to licensure to address technical depth and professional practice, which may include
 - a. Additional formal education, such as a master's or doctoral degree
 - b. Certifications by recognized technical professional organizations
 - c. Professional-level continuing education courses
- C. Focused and guided experience prior to licensure
- D. Increased professional mentorship during the licensure process

PS 34 Sustainability

NCEES encourages professional engineers and professional surveyors to incorporate in their work and lives the principles and practices of sustainability to safeguard the health, safety, and welfare of the public.

Sustainability, as defined for this purpose, is the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs, through the balanced application of integrated planning and the combination of environmental, social, and economic decision-making processes.

PS 35 Remote Sensing Technologies

In the interest of safeguarding the public health, safety, and welfare, the use of remote sensing technology (including but not limited to aerial, ground based, and hydrographic) to perform professional services defined in NCEES *Model Law* 110.20 A.5, Practice of Engineering, and 110.20 B.4, Practice of Surveying, shall be under the responsible charge of an appropriately licensed professional.

APPENDIX A

Acronyms and Abbreviations in this Publication

ABET Accreditation Board for Engineering and Technology, Inc.

ACCA Advisory Committee on Council Activities

ADA American with Disabilities Act AP NCEES administrative policy

ANSAC/ABET Applied and Natural Science Accreditation Commission of ABET

CBT Computer-based testing

CPC Continuing professional competency

EAC/ABET Engineering Accreditation Commission of ABET EAP NCEES examination administration policy NCEES examination development policy

ETAC/ABET Engineering Technology Accreditation Commission of ABET
EPE Committee on Examinations for Professional Engineers
EPP Committee on Examination Policy and Procedures
EPS Committee on Examinations for Professional Surveyors

FE exam Fundamentals of Engineering examination

FP NCEES financial policy

FS exam Fundamentals of Surveying examination

NCEES National Council of Examiners for Engineering and Surveying

PAKS Professional Activities and Knowledge Study

P.E. Professional engineer

PE exam Principles and Practice of Engineering examination

PP NCEES professional policy PS NCEES position statement

PS exam Principles and Practice of Surveying examination

APPENDIX B NCEES Publications

Publications available on ncees.org in the About NCEES section

- The NCEES **annual report** highlights the Council's leadership, mission, initiatives, and financial activities. An interactive version of the annual report is available at ncees.org/annualreport.
- The NCEES *Bylaws* outlines the structure of the Council.
- The Continuing Professional Competency Guidelines provides best practices for state licensing boards that have CPC requirements for licensees.
- NCEES uses its "Criteria for Evaluating the Administration of NCEES Examinations at Non-U.S.
 Sites" when assessing whether or not to administer its exams in other countries.
- The *History of the National Council of Examiners for Engineering and Surveying*, 1920–2020 provides an in-depth history of U.S. licensure and NCEES.
- *Licensure Exchange* is the NCEES bimonthly newsletter for the exchange of information, opinions, and ideas regarding the licensure of engineers and surveyors.
- The *Manual of Policy and Position Statements* describes Council administrative, examination, financial, and professional policies as well as the official NCEES position on licensure issues.
- The *Model Law* reflects best practices as determined by the NCEES member boards. It is a model for state practice legislation.
- The Model Rules provides licensure boards with guidelines for engineering and surveying licensing laws and ethics.
- When it conducts a credentials evaluation, NCEES compares the candidate's college-level education against the NCEES Engineering Education Standard or the NCEES Surveying Education Standard. These standards reflect generally agreed-upon educational qualifications for entering the profession.
- **NCEES Squared** is the official NCEES source for engineering and surveying licensure statistics.
- The NCEES white paper "Using the FE Exam as an Outcomes Assessment Tool" describes in detail how engineering departments can use the FE exam to assess program outcomes.

Additional publications available on MyNCEES (Member Resources portion of the NCEES website)

- Annual meeting Action Items and Conference Reports
- NCEES board of directors minutes
- Investigation and Enforcement Guidelines
- Investigative Training Manual
- Zone minutes
- Zone Meeting and Continuity Guidelines



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