Professional Engineers
Ontario

COMPETENCY-BASED ASSESSMENT
CANDIDATE'S GUIDE

February 2024

1.0 INTRODUCTION

Professional Engineers Ontario (PEO) is the licensing and regulating body for professional engineering in the province. PEO operates under the authority of the *Professional Engineers Act* to serve and protect the public interest by setting and upholding high academic, experience and professional practice standards for the engineering profession. Only individuals licensed by PEO are permitted by law to undertake and assume responsibility for engineering work in Ontario.

COMPETENCY-BASED ASSESSMENT GUIDE PURPOSE

This guide is intended to help PEO licence application candidates navigate the competency-based assessment (CBA) system. The content details the CBA's 34 engineering competencies and how they should be met and presented. You will find a list of indicators that act as a guideline for selecting examples of experience that demonstrate the candidate's exposure to the competencies.

This document provides a comprehensive overview of the roles and responsibilities of the candidates, validators and assessors within the CBA framework.

Finally, this guide explains the competency rating system and the rating rubric, which measures the level of competence of the candidate per category and determines the candidate's readiness for licensure.

2.0 COMPETENCY-BASED ASSESSMENT (CBA)

CBA is a methodology used to assess candidate readiness for licensure. It examines 34 engineering competencies across seven competency categories, in which all professional engineers must be competent to support effective practice and public safety.

The CBA is conducted to determine whether candidates have progressed to a professional level of competency in their field through their engineering work experience. The system is designed to ensure that professional licensure requirements uphold and protect the public interest while maintaining an equitable, transparent, consistent and efficient licensure process.

The CBA system requires candidates to demonstrate the ability to apply their engineering knowledge reliably and safely across different circumstances; to recognize their professional limitations; and to be prepared when necessary to either extend and develop their expertise or call for assistance from other sources.

2.1 COMPETENCIES

Competencies are defined as an identified skill set or knowledge base the candidate must have attained to achieve professional licensure. PEO's competency framework is comprised of 34 key competencies. See Appendix A for a complete list of competencies.

2.2 CANADIAN ENVIRONMENT COMPETENCIES

The Canadian environment competencies represent a subset of six competencies within the competency framework that best demonstrate knowledge and experience of regulations, codes and standards used in Canada, or the international standard equivalence, plus quality control, safety awareness, professional accountability and communication.

See Appendix D for a complete list of Canadian environment competencies.

NOTE: Canadian Environment competencies can be demonstrated by work examples obtained abroad. For example, a candidate working for Shell Nigeria may use the same American Petroleum Institute (API) engineering standards used in Norway, the United States or Windsor, Ontario.

2.3 COMPETENCY CATEGORIES

The seven competency categories represent the essential areas in which professional engineers of all disciplines must demonstrate competence to ensure effective practice and public safety. Each competency category contains a list of the competencies required in that area. Candidates must meet the required average level of competence in each competency category to meet the competency requirements.

2.4 ROLES AND RESPONSIBILITIES

The following is an overview of the roles and responsibilities of each participant in the CBA system.

CANDIDATE

Candidates are responsible for:

- Providing work experience details through the competency assessment system, including a work experience summary and specific, detailed examples to address each competency, which allows validators and PEO's assessors to have a clear understanding of a candidate's knowledge and experience in all areas essential to safe and effective engineering practice;
- Providing contact information for validator(s) to verify, rate and provide feedback on their assigned competencies; and
- Providing a self-assessed rating for each competency according to the competency rating scale.

VALIDATORS

A validator is an individual who assesses and rates the candidate's work experience. Ideally, the validator should have direct, first-hand knowledge of the candidate's work, should have provided suitable professional supervision of the candidate throughout the work period being validated and should have taken technical responsibility for the candidate's work. The validator may have a title other than supervisor and may be a manager, mentor, client or colleague and does not necessarily have to be from the same place of employment. The validator should be sufficiently familiar with the candidate's work to confidently rate the assigned competencies.

For engineering work experience gained in Canada, the validator must be a professional engineer (P.Eng.) who was registered during the work period they are validating. For work experience gained outside of Canada, it is expected that the validator be a senior engineering practitioner.

It is preferred that any validator who is not a P.Eng. and is validating international experience be a senior engineering practitioner who is licensed as an engineer in their jurisdiction. PEO may request information to support their engineering qualifications, which may include proof of academic and engineering credentials and professional designation, during the assessment process.

Acceptability of the validator is at the discretion of PEO. Family members and relatives are normally not acceptable as validators and will be assessed on a case by case basis.

Validators are responsible for:
- Providing competence ratings for each competency they are assigned to rate and review in the portal;
- Providing an overall feedback summary on the candidate's readiness for licensure; and
- If required, identifying their professional designation and jurisdiction of licensure.

ASSESSORS

Assessors are designated PEO staff who will assess and determine if the candidate has demonstrated that they have applied these competencies at an entry-to practice professional level and will provide a final recommendation towards licensure.

Assessors are responsible for:
- Reviewing the candidate's submission as well as validators' feedback;
- Providing ratings for each competency; and
- A final recommendation on a candidate's readiness for licensure.

NOTE: The candidate's readiness for licensure is determined solely by the assessors' ratings. The candidate's and validators' ratings serve as auxiliary information only.

3.0 APPLICATION PROCESS

Candidates should first review PEO's CBA Candidate's Guide before creating an account in PEO's application portal. Once in the application portal, the candidate will follow the steps outlined below to fulfill the experience requirement for the application.

3.1 PROVIDE EXPERIENCE SUMMARY AND VALIDATORS

All candidates must complete an experience summary through the CBA reporting system. The experience summary section is a chronological, short-form overview of a candidate's experience, including a brief summary of their responsibilities in each position.

Candidates can use up to 12 months of pre-graduation experience towards the minimum 48-month requirement. This experience may be acquired after the candidate has completed the first half of the classroom component of the degree or equivalent educational qualifications but does not pre-date meeting the halfway mark. Candidates can include this pre-graduation experience in the experience summary but must be careful to select the pre-graduation option.

NOTE: The experience summary information helps determine if you have the minimum quantitative requirement of 48 months of engineering experience for licensure.

3.2 PROVIDE COMPETENCY-RELATED WORK EXAMPLES

When addressing the competency fields, please use both the competency description and their indicators as guidelines to identify suitable and relevant examples and activities from your engineering experience that will best demonstrate your achievement of each competency. Work examples from pre-graduation experience can be used when addressing competencies as long as a validator is assigned.

Please be specific about your individual actions and contributions, and note that use of the word "I" is required in order to show what work you did specifically. Point form is permitted.

You do not need to demonstrate all indicators listed, although they provide a helpful guide to what assessors are seeking. Indicators are examples to guide you in determining the type of work that would satisfy each competency. Each competency example includes the following information:
- **Situation:** A brief overview of a specific situation or problem. The same situation can be used to cover multiple competencies.
- **Action taken:** The actions that you took in response to the situation, including engineering judgements made or solutions found. This section is typically the longest portion of the example and should include details about the specific actions you took that demonstrate completion of the competency.
- **Outcome:** The impact that your actions, solutions or judgements generated.

NOTE: Where project details are required to be kept confidential, you must note this within the reporting system. Share as much detail as you are permitted to provide sufficient evidence that you are able to practise competently as a professional engineer. This could be demonstrated by describing the nature of your work and its complexities without disclosing confidential details about solutions, business processes, client names or locations.

3.3 ASSIGN VALIDATORS

Assign a validator to each competency example.

3.4 SELF ASSESSMENT

Provide a self-assessment rating as per the competency rating scale that you believe you demonstrated in the example. The descriptions of each level of competence in Appendix B will help you to determine which level on the competency rating scale you should cite for each competency.

3.5 COMPLETION OF EXPERIENCE REQUIREMENT

Once the candidate has provided the information above and all competencies have been validated, the experience requirement will be deemed completed towards application.

NOTE: Candidates will not be able to edit the information entered in the text fields once e-mail(s) are sent to the respective validator(s).

4.0 COMPETENCY RATING SYSTEM

4.1 COMPETENCY RATING SCALE

The competency rating scale is used to determine whether a candidate has achieved the required level of competence to gain licensure. It measures the level of overall competence, not the level of success a candidate achieved in a specific situation.

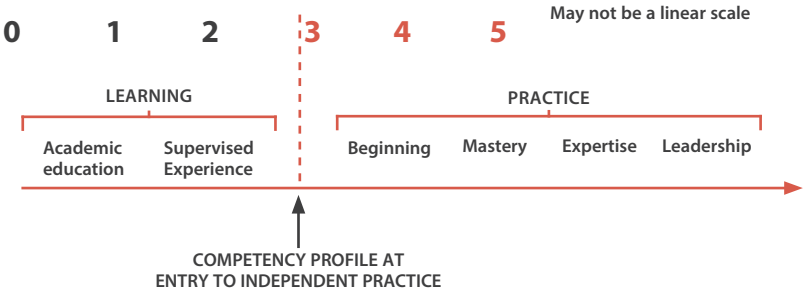
When rating the competencies for professional engineering licensure, it must be clear that they are not only performing well in the circumstances they have encountered to date, but they have also demonstrated the capacity to handle probable future situations.

All levels (0-5) described with respect to each of the seven competency categories and Canadian Environment Competencies can be found in Appendix B.

4.2 LEVELS OF COMPETENCY

Candidates and validators independently rate a candidate's level of competence in each key competency. Fulfillment of each key competency and competency category is measured through the competency rating scale, which rates the candidate's skill on a scale from 0 to 5.

As illustrated in the schematic below, the candidate must demonstrate a competence level at entry to practice, demonstrating they will no longer require supervision to complete their engineering tasks.



Minimum Rating Requirements

1. A candidate must attain the minimum rating of 1 for each key competency.
2. Each of the Canadian environment competencies must also be achieved at a minimum category greater than level 1 in order to satisfy the Canadian environment competency requirement.
3. A candidate must attain the minimum defined average level of competence in all competency categories.

This means if a candidate has achieved the required average for each competency category, but has not achieved the minimum rating required per competency, the candidate may not be recommended for licensure.

Refer to Appendix C for the minimum required average rating level per category and Appendix D for minimum rating level for Canadian environment competencies.

APPENDIX–CBA INFORMATION, DEFINITIONS, RATING TABLE

A–COMPETENCIES

	CATEGORY 1–TECHNICAL COMPETENCE	INDICATORS
1.1	Demonstrate your knowledge and awareness of the regulations, codes and standards used in Canada or the international standard equivalence. This includes local engineering procedures and practices as applicable.	1. Identify and comply with legal and regulatory requirements for project activities 2. Incorporate knowledge of codes and regulations in design materials 3. Prepare reports assessing project compliance with regulations, codes and standards used in Canada or the international standard equivalence 4. Recognize the need to design for code compliance while achieving constructability 5. Identify provincial/territorial, regional, indigenous codes, standards and/or practice guidelines that are applicable to your example. Briefly discuss how the codes, standards and/or guidelines would be applied in your example if it had taken place in Canada 6. Incorporate knowledge of provincial, regional, indigenous codes, standards, regulations and/or practice guidelines in design materials 7. Recognize the importance of respecting the regional traditions and indigenous regulations towards a project
1.2	Demonstrate knowledge of materials, or operations as appropriate, project and design constraints, designed to best fit the purpose or service intended and address interdisciplinary impacts.	1. Demonstrate knowledge of materials, operations, project and design constraints, e.g. cost, design, materials, labour, time, budget, production 2. Demonstrate understanding of, and coordination with, other engineering and professional disciplines
1.3	Analyze technical risks and offer solutions to mitigate the risks.	1. Demonstrate familiarity with system protection and/or damage/hazard mitigation objectives, philosophies, practices, procedures and functions 2. Identify risk areas including causes of risks and their impacts 3. Develop risk management/mitigation plans 4. Demonstrate an understanding of the difference between technical risk and public safety issues
1.4	Apply engineering knowledge to design solutions.	1. Prepare technical specifications 2. Demonstrate use of theory and calculations to arrive at solutions 3. Demonstrate the development of a unique design solution which could not be accomplished with a standard design solution
1.5	Be able to understand solution techniques and independently verify the results.	1. Demonstrate an understanding of the engineering principles used in the application of computer design programs and show/describe how the results were verified as correct 2. Participate in an independent review and verification of solution techniques or analysis methods

1.6	Demonstrate your knowledge and awareness of regulations, codes and standards used in Canada pertaining to safety, or the international standard equivalence.	1. Identify, incorporate, and/or participate in review of safety considerations, safety procedures and safety equipment as they apply to system operations and/or maintenance programs 2. Review and incorporate safety or system operating procedures 3. Demonstrate specific knowledge of safety regulations 4. Incorporate explicit human and public safety considerations in design and all other professional activities 5. Understand and account for safety risks associated with processes 6. Identify relevant protection equipment and process modifications to mitigate safety risks
1.7	Demonstrate understanding of systems as well as of components of systems.	1. Demonstrate an understanding of each element in a process 2. Demonstrate an understanding of the interactions and constraints in the behaviour of the overall system 3. Manage processes within the overall system (monitor and, where needed, modify processes to achieve optimum outcomes)
1.8	Exposure to all stages of the process/project life cycle from concept and feasibility analysis through implementation.	1. Demonstrate awareness of project concerns and roles of other stakeholders in the project stages: • Identification: generation of the initial project idea and preliminary design • Preparation: detailed design of the project addressing technical and operational aspects • Appraisal: analysis of the project from technical, financial, economic, social, institutional and environmental perspectives • Preparation of specifications and tender documents: preparation of tender document, inviting and opening of tenders, pre-qualification, evaluation of bids and award of work • Implementation and monitoring: implementation of project activities, with ongoing checks on progress and feedback • Evaluation: periodic review of project with feedback for next project cycle
1.9	Demonstrate your understanding of the role of peer review and quality management that is essential to engineering practice in Canada.	1. Conduct checks, including field checks, to verify the validity of design 2. Follow Quality Management principles in practice, which may include Quality Management Guidelines, Guidelines on Authentication of Documents, Use of the Seal, Reviewing Work Prepared by Others and other related practice guidelines provided by their provincial/territorial regulator 3. Prepare quality control plans, including frequency and test parameters, for specific processes or products 4. Evaluate test results, determine adequacy and develop recommended action 5. Demonstrate peer review 6. Demonstrate that completed project, systems or sub-systems meet project objectives in terms of functionality and operational performance
1.10	Transfer design intentions to drawings and sketches; Understand transmittal of design information to design documents.	1. Review designs of others and communicate findings and issues, including suggested alternatives 2. Demonstrate communication of ideas and concepts to project team members 3. Demonstrate understanding of the value of project completion reports and lessons learned reports to application in future projects by self or others 4. Produce sketches, notes, documentation and design documents to prepare proposals; and preliminary, and final design drawings for acceptance by the client and approval by regulatory authorities

	CATEGORY 2–COMMUNICATION	INDICATORS
2.1	Demonstrate effective verbal communication with team members, clients, contractors and members of the public.	1. Communicate in a simple and concise manner 2. Communicate official project data with team members, clients and contractors 3. Ability to express both technical and non-technical issues and ideas clearly to both technical and non-technical personnel 4. Conduct presentations to technical and non-technical groups; presentations to superiors and subordinates; internal (colleagues) and external (clients) presentations 5. Present project parameters to the public 6. Demonstrate active participation in and contribution to meetings
2.2	Demonstrate your ability to communicate effectively in writing with team members, clients, contractors and members of the public.	1. Tailor communications to the intended audience 2. Ability to write and review technical documents 3. Ability to write clear memos and reports to both technical and non-technical personnel 4. Utilize drawings and sketches to demonstrate key points and concepts 5. Demonstrate a written report on a technical subject 6. Demonstrate a written report on field observations 7. Take training in technical report writing 8. Work with common office programs (e.g., Excel, Word, Outlook, internet browsers)
2.3	Demonstrate your ability to effectively review key documents.	1. The ability to review technical documents, to understand the implications and to summarize key points
	CATEGORY 3–PROJECT AND FINANCIAL MANAGEMENT (5 competencies)	**INDICATORS**
3.1	Awareness of project management principles.	1. Awareness of resource planning, budgeting, change management, scope management, schedule and unforeseen issues in managing a project from start to end 2. Understand the impacts, benefits and risks that various design solutions have on a project 3. Understand the needs and expectations of internal and external clients
3.2	Demonstrate increasing levels of responsibility for project planning and implementation.	1. Follow and contribute to development of project management plans 2. Be aware of future improvements and demands as well as other ongoing projects 3. Demonstrate increasing responsibility for client contact and management 4. Demonstrate how project planning activities and interaction with others has increased over the training period 5. Participate in managing and adapting a schedule 6. Demonstrate awareness of issues related to other disciplines that might affect the project, maintaining contact and communication to discuss and resolve issues
3.3	Manage expectations in light of available resources.	1. Update schedule and budget on regular basis and communicate status 2. Provide market assessment and availability of materials for a project 3. Meet deadlines

3.4	Understand the financial aspects of their work.	1. Demonstrate cognizance of project budget during design and construction 2. Provide technical/financial reports and compare the options 3. Demonstrate an understanding of the place of finance in business decisions 4. Understand principles of budgeting and financing 5. Understand the relevant business processes 6. Demonstrate an understanding of working with and developing contracts
3.5	Ask for and demonstrate response to feedback.	1. Demonstrate implementation of lessons learned, and performance reviewed, in meetings 2. Show willingness to accept comments and criticism 3. Identify situations where you received feedback and how you responded to that feedback 4. Demonstrate appreciation of the scope of a project and an appropriate response when a project varies beyond the scope
	CATEGORY 4–TEAM EFFECTIVENESS (2 competencies)	**INDICATORS**
4.1	Work respectfully and with other disciplines/people.	1. Demonstrate respect for others' responsibilities and expertise 2. Integrate engineering with other professional input 3. Participate actively in team discussions
4.2	Work to resolve differences.	1. Demonstrate leadership in achieving team goals and resolving conflict 2. Work to facilitate beneficial conflict resolution 3. Exposure to training in conflict resolution
	CATEGORY 5–PROFESSIONAL ACCOUNTABILITY (6 competencies)	**INDICATORS**
5.1	Demonstrate your ability to apply principles of the Code of Ethics, or the equivalent international standard equivalence, within the engineering environment.	1. Comply with the Code of Ethics in your jurisdiction of practice 2. Fulfill professional obligations to employers, clients, peers and the profession while applying professional ethics in meeting corporate directives 3. Understand the concept of self-governance, and the privileges granted to professional engineers and their obligations 4. Work within the engineering legislation in the jurisdiction of practice 5. Demonstrate the use of practice guidelines in relation to self-regulation and professional practice
5.2	Demonstrate an awareness of your own scope of practice and limitations.	1. Ask for help and incorporate input 2. Demonstrate interaction with your supervisor 3. Ask questions when needed
5.3	Understand how conflict of interest affects your practice.	1. Understand how conflict of interest affects your practice
5.4	Demonstrate awareness of professional accountability.	1. Awareness of the potential professional liability involved in all aspects of the design, construction and inspection process
5.5	Demonstrate an understanding of appropriate use of the stamp and seal.	1. Please note that understanding and awareness is what is required for this key competency
5.6	Understand own strengths/weaknesses and know how they apply to one's position.	1. Prepare a self-criticism list and the ways to mitigate or eliminate weaknesses

	CATEGORY 6–SOCIAL, ECONOMIC, ENVIRONMENTAL AND SUSTAINABILITY (5 competencies)	INDICATORS
6.1	Demonstrate an understanding of the safeguards required to protect the public and the methods of mitigating adverse impacts.	1. Prepare public safety regulations and advice during design and implementation of a project 2. Understand potential effects of climate change
6.2	Demonstrate your understanding of the relationship between the engineering activity and the public.	1. Recognize the value and benefits of the engineering work to the public 2. Prepare a report regarding the impact of a project to public
6.3	Understand the role of regulatory bodies on the practice of engineering.	1. Recognize the importance of respecting the regional traditions and native regulations towards a project 2. Understand the role and regulations of other professions whose practices overlap or interface with the practice of professional engineering
6.4	Be aware of any specific sustainability clauses that have been added to practice guidelines that apply to their area.	1. Be aware of any specific sustainability clauses that have been added to practice guidelines that apply to their area
6.5	To the extent possible, recognizing the candidate's position of influence, consider how sustainability principles could be applied and promoted in their specific work.	1. Include sustainability analysis in project descriptions 2. Provide a list of revisions made during design and implementation period of the project
	CATEGORY 7–PERSONAL CONTINUING PROFESSIONAL DEVELOPMENT (3 competencies)	**INDICATORS**
7.1	Demonstrate completion of professional development activities.	1. Participation in community, technical, industry and/or professional association committees and task forces 2. Engagement in a variety of self-directed and formal professional development activities to learn and maintain currency in field of practice and report progress to applicable parties
7.2	Demonstrate awareness of gaps in knowledge and areas requiring future development.	1. Gap analysis of knowledge and skills; highlight the gaps that exist 2. Identification of areas of weakness where additional training is needed
7.3	Develop a professional development plan to address gaps in knowledge and maintain currency in field of practice.	1. Plan to pursue training in areas of weakness and remedy gaps in knowledge 2. Planned activities may include a variety of self-directed and formal professional development activities to learn and maintain currency in field of practice

B–COMPETENCY RATING SCALE

COMPETENCE LEVEL	CANADIAN ENVIRONMENT COMPETENCIES (1.1, 1.6, 1.9, 2.3, 5.1, 6.2)	COMPETENCE CATEGORY		
		1	2 - 6	7
0	Has no experience with the competency	Has little or no exposure to the competency		• Has completed no continuing professional development • Has not completed a gap analysis to determine areas of weakness • Has demonstrated no plan for future professional development
1	Demonstrates some awareness of the competency through work experience	• Receives training in the various phases of office, plant, field or laboratory engineering • Tasks assigned may include preparation of simple plans, designs, plots, calculations, costs or bills of material in accordance with established codes, standards, drawings, etc. • May carry out routine technical surveys or inspections and prepare reports • Has no supervisory role	• Receives training in on-the-job assignments • Is at an early/beginner level • Carries out activities of low complexity • Has no supervisory role • Is at a basic level in this area; competency needs substantial development	• Has completed little continuing professional development activities • Gap analysis and assessment of areas of weakness incomplete • Has developed an inadequate or no professional development plan; many gaps in knowledge are not sufficiently addressed
	Direct supervision required = Significant	Direct supervision required = Significant Responsibility and Risk = Minimal Complexity of Candidate's own work = Minimal		

2	Demonstrates awareness of the competency and has minimal practical experience with the competency (either in Canada or another jurisdiction)	• Receives tasks of limited scope and complexity; minor phases of broader projects • Uses standard engineering methods and techniques in solving problems • Assists senior engineers with technical tasks requiring accuracy in calculations, completeness of data, and adherence to prescribed testing, analysis and or design • May assign and check work of approximately one to five non-engineering staff • Normally regarded as a continuing portion of an engineer's training and development	• Carries out activities of limited scope and complexity • Usually relies on predetermined standards and techniques in solving problems. • Assists more senior engineers in carrying out tasks • Normally regarded as a continuing portion of an engineer's training and development • Marginal skills; requires training to bring skills to a professional level	• Has completed some continuing professional development activities • Gap analysis is marginal; insufficient assessment of areas of weakness • Has developed a marginal professional development plan; not all key gaps in knowledge are addressed
	Direct supervision required = Considerable	Direct supervision required = Considerable Responsibility and Risk = Some Complexity of Candidate's own work = Some		
3	Has moderate experience with the competency while working under supervision (either in Canada or another jurisdiction)	• Receives tasks of moderate scope and complexity; standalone phases of major projects • Usually solves problems by using combinations of standard procedures, modifications of standard procedures, or methods developed in previous assignments. • May assign and check work of approximately one to five non-engineering staff • Is typically seen to be ready to assume professional engineering responsibilities	• Carries out activities of moderate scope and complexity • Provides significant assistance to more senior engineers in carrying out tasks • Usually solves problems by using combinations of standard procedures, modifications of standard procedures, or methods developed in previous assignments. • Possesses adequate skills in this competency • Is typically seen to be ready to assume professional engineering responsibilities	• Has completed sufficient continuing professional development activities • Gap analysis is adequate; areas of weakness are adequately assessed • Has developed an adequate professional development plan; gaps in knowledge are addressed
	Direct supervision required = Some	Direct supervision required = Some Responsibility and Risk = Considerable Complexity of Candidate's own work = Moderate		

COMPETENCE LEVEL	CANADIAN ENVIRONMENT COMPETENCIES (1.1, 1.6, 1.9, 2.3, 5.1, 6.2)	COMPETENCE CATEGORY		
		1	2 - 6	7
4	Has advanced knowledge of the competency and can carry out complex activities with minimal supervision	• Carries out responsible and varied assignments requiring general familiarity with a broad field of engineering and knowledge of reciprocal effects of the work upon other fields. • Solves problems by using a combination of standard procedures and devising new approaches • Deals with assigned problems by devising new approaches, applying existing criteria in new ways, and drawing conclusions from comparative situations • Participates in planning to achieve prescribed objectives • May give technical guidance to junior engineers, technologists and technicians • Is typically seen to be working at a fully qualified professional engineering level	• Carries out responsible and varied activities • Deals with assigned problems by devising new approaches, applying existing criteria in new ways, and drawing conclusions from comparative situations • Participates in planning to achieve prescribed objectives • May provide guidance to junior engineers, technologists and technicians • Possesses strong skills in this competency; above-average ability is apparent • Is typically seen to be working at a fully qualified professional engineering level	• Has completed a good amount of continuing professional development activities • Gap analysis is strong; areas of weakness are correctly assessed • Has developed an strong professional development plan; gaps in knowledge are well addressed
	Direct supervision required = Minimal	Direct supervision required = Minimal Responsibility and Risk = Significant Complexity of Candidate's own work = Considerable		

5	Demonstrates ability to carry out activities of the competency with advanced skills and complexity, with no supervision	• Applies mature engineering knowledge in planning and conducting projects having scope for independent accomplishment, and coordination of difficult and responsible assignments. • Deals with assigned problems in a mature, creative and experienced manner by modifying established guides, devising new approaches, applying existing criteria in new ways, and drawing conclusions from comparative situations • Participates in short- and long-range planning • Makes independent decisions for devising practical and economical solutions • Assigns and outlines work; advises on more difficult problems and methods of approach	• Carries out activities of advanced scope and complexity • Independently coordinates difficult and responsible assignments and activities. • Deals with problems or issues in a mature, creative and experienced manner by modifying established guides, devising new approaches, applying existing criteria in new ways, and/or drawing conclusions from comparative situations • Participates in short- and long-range planning • Makes independent decisions for devising practical and economical solutions to problems • Possesses superior skills in this competency; provides mentorship or supervision	• Provides and demonstrates leadership in continuing professional development activities • Gap analysis is excellent; areas of weakness are very well assessed • Has developed a superior professional development plan to address all gaps in knowledge and maintain currency in field of practice • Develops professional development plans with others and may instruct courses as appropriate
	Direct supervision required = Autonomous	Direct supervision required = Autonomous Responsibility and Risk = Total Complexity of Candidate's own work = Significant		

C–MINIMUM CATEGORY AVERAGE

COMPETENCY CATEGORY	MINIMUM AVERAGE COMPETENCY LEVEL
1–Technical Competence	3
2–Communication	3
3–Project and Financial Management	2
4–Team Effectiveness	3
5–Professional Accountability (Ethics & Professionalism)	3
6–Social, Economic, Environmental and Sustainability	2
7–Personal Continuing Professional Development	3

D–CANADIAN ENVIRONMENT COMPETENCIES

CANADIAN ENVIRONMENT COMPETENCY	INDICATOR	MIN. RATING LEVEL PER CANADIAN COMPETENCY
	CATEGORY 1–TECHNICAL COMPETENCIES (minimum category level required = 3)	
COMPETENCY 1.1	Demonstrate knowledge of regulations, codes and standards used in Canada, or the international standard equivalence, and safety. This includes local engineering procedures and practices as applicable	3
COMPETENCY 1.6	Safety awareness: be aware of safety risks inherent in the design; demonstrate safety awareness – on-site and possible safety authorization/certificate as appropriate	3
COMPETENCY 1.9	Understand the concept of quality control during design and construction including independent design check and independent reviews of design, field checks and reviews	3
	CATEGORY 2–COMMUNICATION COMPETENCIES (minimum category level required = 3)	
COMPETENCY 2.3	Reading and Comprehension	3
	CATEGORY 5–PROFESSIONAL ACCOUNTABILITY (minimum category level required = 3)	
COMPETENCY 5.1	Work with integrity, ethically and within professional standards	3
	CATEGORY 6–SOCIAL, ECONOMIC, ENVIRONMENTAL AND SUSTAINABILITY (minimum category level required = 2)	
COMPETENCY 6.2	Demonstrate an understanding of the relationship between the engineering activity and the public	2