

Canadian Environment Competencies

GUIDE FOR APPLICANTS AND ASSESSORS



CompetencyAssessment.ca

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Purpose

The purpose of this guide is to provide details on the changes to the Canadian environment competency requirement and how applicants and assessors will evaluate satisfaction of the requirement using a competency-based approach.

Background

All applicants must demonstrate Canadian environment competencies under the direct supervision of a Canadian Professional Engineer (or equivalent). Traditionally, the Canadian environment competency requirement has been a time-based requirement, typically satisfied by working in a Canadian environment (or equivalent) for at least 12 months.

Participating regulators using the online Competency Assessment System have determined the growing need to use a competency-based method to evaluate Canadian environment experience.

The intent of the Canadian Environment Competencies is to:

- To provide clear and transparent evaluation criteria for the determination of satisfactory engineering experience in a Canadian Environment or equivalent.
- To provide an alternative method for applicants to satisfy the minimum 12 months of Canadian environment competency requirement.
- To align the assessment method of the Canadian environment competency requirement with the online Competency Assessment System.
- To maintain and uphold high standards for the engineering profession.
- To reduce the reliance on time-based requirements (i.e., minimum 12 months).

Canadian Environment Competencies

The Canadian environment competencies are a subset of eight competencies that have been identified from the existing 34 competencies of the competency framework, and that best demonstrates knowledge and experience of Canadian regulations, codes, standards, quality control, safety awareness, professional accountability and communication. The intent is to align the assessment method of the Canadian environment competency requirement with the online Competency Assessment System.

The eight Canadian environment competencies are:

- **1. Technical Category**
 - 1.1. Regulations, Codes & Standards
 - 1.6 Safety Awareness
 - 1.9 Demonstrate Peer Review and Quality Control
- **2. Communication Category**
 - 2.1 Oral Communication (in English/French)
 - 2.2 Writing (in English/French)
 - 2.3 Reading and Comprehension (in English/French)
- **5. Professional Accountability**
 - 5.1 Code of Ethics
- **6. Social, Economic, Environmental & Sustainability**
 - 6.2 Engineering and the Public

Working in Canada Seminar

The Working in Canada Seminar is an online, self-paced course designed to address key skills, competencies and customs commonly expected within the Canadian engineering workplace environment. The seminar provides useful and practical information for all who intend to practice professional engineering in Canada. The full course takes an estimated 56-64 hours to complete and consists of four units that addresses the Canadian Environment Experience Competencies:

- Unit 1: The Regulation and Practice of Engineering in Canada
- Unit 2: Codes, Standards and Regulations
- Unit 3: Culture and Communication
- Unit 4: Collaboration and Peer Review

The Working in Canada Seminar is not meant to replace Canadian environment experience – it is intended to be a supplemental option for assessors to recommend to applicants who have demonstrated strong knowledge and abilities in all areas but lack direct experience in a Canadian (or equivalent to Canadian) Environment.

Refer to the Appendix for more details regarding the Working in Canada Seminar and the relevant units that correspond to each Canadian environment competency.

Level of Competence

In addition to achieving the required average level for each competency category, each of the Canadian environment competencies must be achieved at a minimum category level in order to satisfy the Canadian environment competency requirement.

This means that if an applicant achieved the required average for each competency category – but have not achieved one or more of the Canadian environment competencies at the minimum required level – the applicant will not be recommended for registration until the required level has been met.

Please refer to Table 1 below for a summary of the rating levels required.

Table 1: Minimum Required Level for Canadian Environment Competencies

Pan-Canadian Competency	Indicator	Min. Rating Level Per Canadian Competency
1. Technical Competencies (Minimum Category Level Required = 3)		
Competency 1.1	Demonstrate knowledge of regulations, codes, standards, 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
2. Communication Competencies (Minimum Category Level Required = 3)		
Competency 2.1	Oral Communication (in English/French)	3
Competency 2.2	Writing (in English/French)	3
Competency 2.3	Reading and Comprehension (in English/French)	3
5. Professional Accountability (Minimum Category Level Required = 3)		
Competency 5.1	Work with integrity, ethically and within professional standards	3
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

Indicators

Indicators are defined as specific examples of activities, actions, skills or behaviours that an applicant could use to demonstrate the existence and achievement of a competency.

Indicators for each of the Canadian environment competencies contain specific references to the Canadian environment to guide applicants on submitting appropriate examples. There is additional guidance for applicants who may not have experience in Canada but wish to use their experience from international environments to partially, or fully, satisfy the Canadian environment competencies. The additional guidance provides suggestions on how applicants can provide the necessary information and detail to assist assessors in determining whether the example could be deemed equivalent.

Competency Rating Scale

The Competency Rating Scale is used to determine whether a candidate has achieved the required competency rating to gain registration. A successful application for registration will require that a candidate attains a minimum defined average level of competence in all Competency Categories.

To satisfy the Canadian environment competency requirement, each of the eight Canadian environment competencies must be achieved at a minimum required level, which is the category average. Refer to Table 1 for the minimum rating required for the Canadian environment experience competencies.

See Table 2 below for an overview of the Competency Rating Scale for Canadian Environment Competencies.

Table 2: Competency Rating Scale for Canadian Environment Experience Competencies (Abridged)

Level/Rating	Experience Level
0	No experience with the competency
1	Demonstrates some awareness of the competency through work experience
2	Demonstrates awareness of the competency and has minimal practical experience with the competency
3	Has moderate experience with the competency while working under supervision
4	Has advanced knowledge of the competency and can carry out complex activities with minimal supervision
5	Demonstrates ability to carry out activities of the competency with advanced skills and complexity, with no supervision

Validators/Referees

Applicants are asked to provide the names and e-mail addresses of a validator to confirm work experience examples and to provide overall feedback on their readiness for professional registration. For each of the Canadian environment competencies, if the example is not a Canadian example, validators will be asked to comment on how the international environment in which the example took place may be considered equivalent to a Canadian environment.

The requirements of validators/referees remain the same as the requirements stated in the Competency Assessment Guide. Ideally, validators are professional engineers (or the equivalent). However, if this not possible, ensure that validators for the mandatory Canadian environment competencies are direct supervisors who are competent in the the same scope of practice as the applicant and who can demonstrate an understanding of the competency requirements.

Assessment Method and Outcomes

All applicants are required to meet a minimum rating for each of the Canadian environment competencies (as shown in Table 1 above). If an applicant has achieved the minimum required rating for all Canadian environment competencies, the applicant will be considered to have satisfied the Canadian environment competency requirement.

Should an applicant achieve a rating lower than the specified minimum required level, the applicant may be:

- Required to complete the *Working in Canada Seminar* to supplement his/her knowledge of the Canadian environment competencies (if appropriate);

- Assessors will now have the option to assign the *Working in Canada Seminar* as a supplement to experience if an applicant has demonstrated some awareness and/or minimal practical experience in one or more Canadian Environment Experience Competencies (typically achieving a score of 1 or 2). This option is available if, after reviewing the applicant's submission and validator comments, the assessor believes the applicant has met all technical requirements but that the applicant is only missing Canadian Environment experience. **That is, there should be no concerns regarding the applicant's overall technical knowledge or abilities for the Working in Canada Seminar to be assigned as a supplement to experience.**
and/or
- Re-assigned the Canadian environment competencies that have not yet been met at the satisfactory rating.

NOTE: Assessors also have the discretion to recommend additional months of experience if applicable.

Table 3: Assessment Outcomes for Canadian Environment Competencies

Assessment Rating	Assessment Outcome
Rating meets the respective minimum Competency Category Level	<ul style="list-style-type: none"> • Applicant satisfies the specified Canadian Environment competency <p><i>(All Canadian Environment competencies require a minimum rating of 3.0 except for Competency 6.2, which requires a minimum rating of 2.0)</i></p>
Rating is greater than 1, but less than minimum Competency Category Level	<ul style="list-style-type: none"> • Applicant is assigned the relevant Working in Canada Seminar unit(s) to satisfy the Canadian environment competency; and/or • Re-assigned Canadian environment competencies not yet satisfied
Rating is 0	<ul style="list-style-type: none"> • Re-assigned the specified Canadian environment competency

For Applicants:

Self-Assessing Canadian Environment Competencies

This section provides guidance to applicants on the submission and evaluation of Canadian Environment Competencies in the online Competency Assessment System. It is intended to supplement the Competency Assessment Guide.

Competency Self Assessment

Overview of Key Competencies

Canadian environment competencies are denoted with a 🇨🇦 on the Competency Self Assessment overview screen. This highlights to both applicants (and to validators and assessors) that these competencies are used towards the assessment of Canadian (or equivalent to Canadian) environment experience.



Providing Competency Examples for Canadian Environment Competencies

The format for submitting Canadian environment competencies will look familiar as it still relies on the Situation, Action, Outcome structure, but with some additions that provide guidance on how to report for the specified Canadian environment competency. The screen below shows that the header section will:

- Indicate that the selected competency is a mandatory Canadian environment competency;
- State the minimum required competency level;
- Provide a link to guidance on reporting for the specific Canadian environment competency.

1.1 Regulations, Codes & Standards Required Overall Level: 3

This competency is intended to demonstrate your knowledge and awareness of Canadian regulations, codes and standards. This includes local engineering procedures and practices as applicable. ?

This is a mandatory Canadian Environment competency. The minimum required competency score for this competency is 3.

For additional guidance, please see the guide for applicants on reporting for [Mandatory Canadian Environment Competencies: 1.1 Regulations, Codes & Standards](#)

Indicators: ?

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 Canadian codes, standards, and regulations
4. Recognize the need to design for code compliance while achieving constructability
5. Identify Canadian, provincial/territorial, regional, indigenous codes, standards and/or practice guidelines that are applicable to your example. Briefly discuss how the Canadian codes, standards and/or guidelines would be applied in your example if it had taken place in Canada
6. Incorporate knowledge of Canadian, provincial, regional, indigenous codes, standards, regulations and/or practice guidelines in design materials
7. Recognize the important of respecting the regional traditions and indigenous regulations towards a project

Indicator Type:

Employer *:

Your Position *:

Using the Guidance Documents

Each Canadian environment competency has a guide that provides applicants with additional information on how to submit examples that addresses the Canadian (or equivalent to Canadian) environment. It also provides guidance for those who may not have direct Canadian environment experience and wish to use international examples. This may be helpful for:

- Applicants with no or limited experience within a Canadian (or equivalent to Canadian) environment; or
- Applicants being assessed to determine if confirmatory examinations may be waived (select jurisdictions only, such as APEGS)

Using the guidance documents will assist assessors in determining satisfaction of the requirements and/or equivalency.

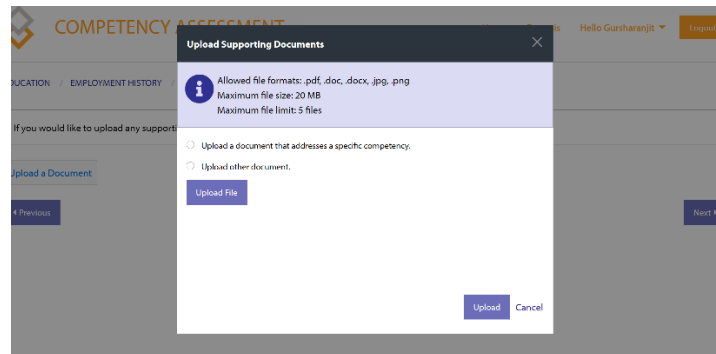
Applicants may submit international examples for Canadian environment competencies. However the applicant has the responsibility to establish equivalency (as explained in the guidance documents online). It is possible for an example to take place outside of Canada and satisfy the Canadian environment competency as long as the information the applicant has provided is sufficient to establish equivalency.

Self-Assessed Competency Level

Indicate the level on the Competency Rating Scale that you believe is demonstrated in the example. While the Canadian environment competencies have minimum required levels that must be achieved prior to registration, you may still submit the competency for validation and assessment even if you rate yourself below the minimum level.

Uploading Supporting Documents

As an applicant, you may feel supplementary documents are necessary to demonstrate how your example satisfies the Canadian environment competency. Supporting documents may be more valuable for those who use international examples for the Canadian environment competencies. Following the guidance documents, there may be additional information you would like to attach to assist assessors in establishing whether the experience may be equivalent to a Canadian environment. There is a screen available to do that and is shown below:



For Assessors: Assessing Canadian Environment Competencies

APPLICANT INFORMATION / EDUCATION / EMPLOYMENT HISTORY / SUPPORTING DOCUMENTS / **COMPETENCY ASSESSMENT** / VALIDATOR FEEDBACK /
FINAL RECOMMENDATION

The 'Competency Assessment' and 'Final Recommendation' pages are the key sections to review Canadian Environment competencies.

Competency Assessment Summary

When reviewing an applicant's competency report, assessors will see a new "Canadian Competencies" section on the Competency Assessment Summary screen. All eight Canadian environment competencies will be listed under the "Canadian Competencies" section to provide a quick overview. The Canadian Environment competencies will also appear in their respective categories.

COMPETENCY ASSESSMENT SUMMARY

Category	Applicant	Validator	Assessor	Required
Technical Competence	3.0	3.0	4.0	3.0
KEY COMPETENCIES +				
Canadian Competencies	3.0	3.0	4.0	
KEY COMPETENCIES -				
1.1 Regulations, Codes & Standards	3.0	3.0	4.0	3.0

Assessing the Canadian Environment Competencies

The screen below shows that the header section for each Canadian environment competency will:

- Indicate that the selected competency is a mandatory Canadian environment competency;
- State the minimum required competency rating;
- Provide a link to guidance on the specific Canadian environment competency

The screenshot shows a detailed view of the competency '1.1 Regulations, Codes & Standards'. The header includes the competency name and a 'Required Overall Level: 3' indicator. The main text states: 'This competency is intended to demonstrate your knowledge and awareness of Canadian regulations, codes and standards. This includes local engineering procedures and practices as applicable.' Below this, a red text box highlights: 'This is a mandatory Canadian Environment competency. The minimum required competency score for this competency is 3.' A link is provided for additional guidance: 'For additional guidance, please see the guide for applicants on reporting for Mandatory Canadian Environment Competencies: 1.1 Regulations, Codes & Standards'. The 'Indicators' section lists seven specific tasks, such as 'Identify and comply with legal and regulatory requirements for project activities' and 'Recognize the important of respecting the regional traditions and indigenous regulations towards a project'. At the bottom, there is a dropdown menu for 'Indicator Type' set to 'Generic'.

As an assessor reviewing the Canadian environment competencies, the assessor should:

- 1) Review the applicant's example to ensure the information provided is sufficient in breadth, depth and quality to determine competency. The guidance documents and indicators can also provide assessors with the appropriate guidance.
- 2) Understand that applicants may submit international examples for Canadian environment competencies; however the applicant has the responsibility to establish equivalency (as explained in the guidance document). It is possible for an example to take place outside of Canada and satisfy the Canadian environment competency as long as the information the applicant has provided is sufficient to establish equivalency.

Providing a Final Recommendation

Assessors are asked to provide their recommendation regarding the Canadian environment competency. A series of additional questions appears depending on the options selected.

[APPLICANT INFORMATION](#) / [EDUCATION](#) / [EMPLOYMENT HISTORY](#) / [SUPPORTING DOCUMENTS](#) / [COMPETENCY REQUIREMENTS](#) / **FINAL RECOMMENDATION**

In your opinion, does the applicant meet the Canadian Environment requirement as specified in [Mandatory Canadian Environment Competencies Guidance Document?](#) *

If yes or no, please comment

Yes

No

Assessors will need to address whether the applicant has satisfied the Canadian environment competency requirement.

A series of questions will appear based on the 'Yes'/'No' selection.

Applicant Satisfies Canadian Environment Competency Requirement

- If the applicant satisfies the Canadian environment competency requirement, select 'Yes'.
 - Assessors are then asked whether the applicant has met all competencies and categories at the appropriate level for registration. Assessors can address and provide comment on the applicant's overall readiness for professional registration.

In your opinion, does the applicant meet the Canadian Environment requirement as specified in Mandatory Canadian Environment Competencies Guidance Document? *

- Yes
- No
- Unable to complete review
- More information needed

Do you believe this applicant has met the competencies at the appropriate level for registration? *

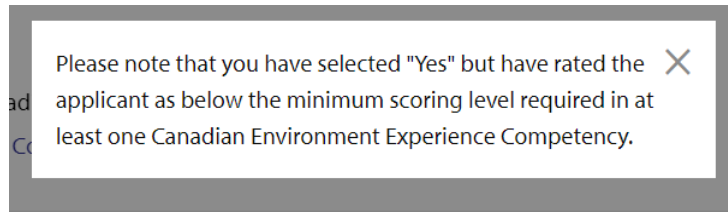
- Yes
- No

If yes or no, please comment

Please provide any additional overall comments regarding this application, if applicable.

[← Previous](#) [Save Feedback](#) [Submit Assessment](#)

- An alert will appear if the assessor indicates that the applicant has met Canadian experience requirement, but at least one Canadian environment competency is below the minimum required level:



Applicant Does Not Satisfy Canadian Environment Competency Requirement

- If the applicant does not satisfy the Canadian environment competency requirement, select 'No'.
 - Assessors are then asked whether they recommend assigning the Working in Canada Seminar (not applicable to APEGS assessors).
Note that assessors do need to be concerned with the individual units of the seminar. Staff will assign units based on which competencies are re-assigned (see Appendix).
- Assessors can also recommend additional experience (i.e., re-assigning competencies) if necessary.

In your opinion, does the applicant meet the Canadian Environment requirement as specified in [Mandatory Canadian Environment Competencies Guidance Document?](#) *

Yes
 No
 Unable to complete review
 More information needed

Do you recommend the assignment of relevant [Working in Canada Seminar](#) units? *

Yes
 No

Do you recommend the assignment of additional experience? *

Yes
 No

If yes or no, please comment

Please provide any additional overall comments regarding this application, if applicable.

Unable to Complete Review or More Information Needed

- If the assessor is unable to complete the review for any reason, the assessor can select the 'Unable to complete review' section and provide a brief explanation.

In your opinion, does the applicant meet the Canadian Environment requirement as specified in [Mandatory Canadian Environment Competencies Guidance Document?](#) *

Yes
 No
 Unable to complete review
 More information needed

Please provide a reason why you are unable to complete the review *

Please provide any additional overall comments regarding this application, if applicable.

[← Previous](#) [Save Feedback](#) [Submit Assessment](#)

- If more information is required in order to proceed with the assessment, the assessor can select 'More information needed' Assessors are then asked to provide details on the information request.

In your opinion, does the applicant meet the Canadian Environment requirement as specified in [Mandatory Canadian Environment Competencies Guidance Document?](#) *

- Yes
- No
- Unable to complete review
- More information needed

Please let us know what information you need (e.g. more detailed examples for some - please list specific numbers - or all of the competencies) *

Please provide any additional overall comments regarding this application, if applicable.

[◀ Previous](#)

[Save Feedback](#)

[Submit Assessment](#)

Appendix

Working in Canada Seminar: Course Syllabus

Development of the Working in Canada Seminar was funded in part by the BC Ministry of Jobs, Economic Development and Competitiveness and the Government of Canada.

Unit 1: The Regulation and Practice of Engineering in Canada

This unit explores the engineering regulatory framework in Canada, the expectations of a professional engineer, and the Code of Ethics. Engineering is not a self-regulated profession in many parts of the world; therefore, internationally trained engineers need to have a thorough understanding of the legislation that governs engineering in Canada, the role of the regulatory bodies, and the primary responsibilities of professional engineers. After completing the unit, participants will be able to work in accordance with legislation and the key principles of professionalism.

Unit 2: Codes, Standards, and Regulations

This unit explores the regulatory requirement for professional engineers to design engineering solutions according to the codes, standards, and regulations of Canada and its provinces and territories. The materials are designed to raise significant awareness of the purpose and variety of codes, standards and regulations. After completing the unit, participants will know how to search for codes, standards, and regulations in the Canadian workplace, and have a strong understanding of the expectations for complying with them.

Unit 3: Culture and Communication

This unit explores the role of culture and communication in the engineering environment in Canada. As with many other professions, the engineering workforce in Canada is both culturally and linguistically diverse. As such, people need to understand the cultural norms of the Canadian engineering environment. They also need to know how to interpret and respond to the behaviors and communication styles of people from cultural origins outside of Canada. At the end of the unit, participants will be more aware of how to adapt their behaviors and communication as necessary in a multicultural Canadian engineering context.

Unit 4: Collaboration and Peer Review

This unit explores collaboration and peer review as they refer to working in teams and having work reviewed by others to ensure the engineer is not an isolated practitioner. Engineering in Canada often requires working with engineers from different disciplines, working in teams, and participating in peer review. At the end of the unit, participants will be able to work more collaboratively and participate more openly and respectfully in peer review and in a team environment.

Assignment of Working in Canada Unit(s) for Partial Fulfilment of Canadian Environment Competencies

Table 1: Assignment of Working in Canada Unit(s) for Partial Fulfilment of Canadian Environment Competencies

Canadian Environment Competency		Minimum Level Required	Working in Canada Seminar Unit for Partial Fulfilment (Knowledge Component: Maximum Score 2 out of 3) of Competency
Competency 1.1	Demonstrate knowledge of regulations, codes, standards and safety – this includes local engineering procedures and practices as applicable	3	<ul style="list-style-type: none"> WCS Unit 1 – The Regulation and Practice of Engineering in Canada WCS Unit 2 – Codes, Standards and Regulations
Competency 1.6	Safety awareness: be aware of safety risks inherent in the design; Demonstrate Safety Awareness – on-side and possible authorization/certificate as appropriate	3	<ul style="list-style-type: none"> WCS Unit 1 – The Regulation and Practice of Engineering in Canada WCS Unit 2 – Codes, Standards and Regulations
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	<ul style="list-style-type: none"> WCS Unit 1 – The Regulation and Practice of Engineering in Canada WCS Unit 2 – Codes, Standards and Regulations (TBD) WCS Unit 4 – Collaboration and Peer Review
Competency 2.1	Oral Communication (in English/French)	3	<ul style="list-style-type: none"> WCS Unit 3 – Culture and Communication WCS Unit 4 – Collaboration and Peer Review
Competency 2.2	Writing (in English/French)	3	<ul style="list-style-type: none"> WCS Unit 3 – Culture and Communication WCS Unit 4 – Collaboration and Peer Review
Competency 2.3	Reading and Comprehension (in English/French)	3	<ul style="list-style-type: none"> WCS Unit 3 – Culture and Communication WCS Unit 4 – Collaboration and Peer Review
Competency 5.1	Work with integrity, ethically and within professional standards	3	<ul style="list-style-type: none"> WCS Unit 1 – The Regulation and Practice of Engineering in Canada
Competency 6.2	Demonstrate an understanding of the relationship between the engineering activity and the public	2	<ul style="list-style-type: none"> WCS Unit 1 – The Regulation and Practice of Engineering in Canada