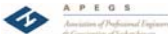


Experience Reporting Changes
for Engineers-in-Training
to
Competency-Based Assessment
(CBA)
May 5, 2018

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WHY EXPERIENCE
REPORTING MATTERS

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Why experience reporting matters

- Prior to being granted a licence, an engineering applicant must demonstrate their ability to practice engineering
- The onus is on the applicant to provide evidence that they possess, through experience, a satisfactory capability to practice engineering at a professional level

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What Is Competency-Based Assessment?

- Competencies are observable and measurable skills, knowledge, abilities, motivations or traits required for professional registration
- Demonstrated through the actions and behaviours of the applicant

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Background

- Multi-year, pan-Canadian project
- Many of Canada's engineering regulators have implemented or are moving toward competency-based assessment of engineering experience
- APEGS has participated in two national pilots
- Geoscience competencies – development currently underway


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PROPOSED CHANGES -
CBA

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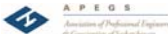


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7

Proposed Changes - CBA

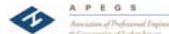
- What constitutes acceptable engineering experience is not changing, we are simply better defining it
- More quantitative, precise, objective, transparent, consistent measuring system
- Increases the confidence of all who participate in the process: applicants, validators, employers and assessors on the Experience Review Committee

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8

Who this affects


- Professional engineer applicants (i.e., engineers-in-training)
- All requirements remain the same:
 - 4 years of experience
 - at least 1 year in a Canadian or equivalent-to-Canadian environment
 - up to one year of pre-grad experience if eligible
 - as well as the others that are currently in place

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9

CBA Framework


- 34 competencies
- Grouped into 7 categories
- Provide 1 example per competency
- Indicators for each competency - guidance on example content that will demonstrate the competency
- Rating scale 0-5
- Interim submission
- Final submission

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10

Competency Categories


| Category # | Category name | # of competencies |
|------------|--|-------------------|
| 1 | Technical competence | 10 |
| 2 | Communication | 3 |
| 3 | Project and financial management | 5 |
| 4 | Team effectiveness | 2 |
| 5 | Professional accountability | 6 |
| 6 | Social, economic, environmental and sustainability | 5 |
| 7 | Personal Continuing Professional Development | 3 |

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11

Competency Rating Scale – p1


- Competency Rating Scale
 - 6 levels of competence (0-5)
- Minimum rating of 1 for each competency individually to pass it, plus
- Minimum category average: 2 or 3 depending on the category

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12

Competency Rating Scale – p2

- Competency Rating Scale (abbreviated summary):
 - 0 – little or no exposure to the competency
 - 1 – general appreciation and awareness
 - 2 – knowledge and understanding of objectives, uses standard eng'g methods, limited scope and complexity
 - 3 – moderate scope and complexity
 - 4 – responsible, varied assignments, working at a professional level
 - 5 – mature professional level, independent

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Competency Categories – Min. Averages

| Category # | Category name | Min. Average |
|------------|--|--------------|
| 1 | Technical competence | 3 |
| 2 | Communication | 3 |
| 3 | Project and financial management | 2 |
| 4 | Team effectiveness | 3 |
| 5 | Professional accountability | 3 |
| 6 | Social, economic, environmental and sustainability | 2 |
| 7 | Personal Continuing Professional Development | 3 |

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14

Competency Example

- Technical competency 1.4:
“Apply engineering knowledge to design solutions.”
List of possible indicators (only one example required, even though there are three guidance points here):
 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

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15

Validators – pg 1

- They are the equivalent of the supervisors and referees in the existing APEGS system
- A **minimum of four** individuals who verify and provide feedback on the engineering experience
- Are typically the P.Eng. supervisors but may also be colleagues, clients or consultants with first-hand knowledge of the work experience. Minimum of 2 must be P.Eng.
- Combined, the Validators’ first-hand knowledge covers as much of the experience as possible but a min of 4 yrs must be covered (5 yrs for Academic Review Cases)

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16

Validators – pg 2

- One Validator per competency, one Validator can verify multiple competencies
- Some Validators may not be given specific competencies to verify but provide input in the overall feedback section only
 - For example, co-op work term supervisors - allows them to comment on and confirm the experience during the co-op period

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17

Validators – pg 3

- Validators who verify specific competency examples must have direct personal and professional knowledge of that experience
 - This person is the supervisor except in exceptional circumstances where prior approval is obtained
- At least one Validator must be a direct supervisor and share the same discipline of practice for which you are applying
- No longer required to have P.Eng. mentor when the supervisor is not a P.Eng. (or equivalent)

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18

Online submission – NEW!

- The online competency assessment system developed by Engineers & Geoscientists BC is being adapted for use by other regulators in Canada
- National look and feel
- APEGS applicants managed directly by APEGS (Eng & Geo BC is just our software provider)
 - Links provided to applicants, validators from APEGS

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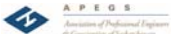


19

Online submission - process

1. EIT enters info including self-rating and validators' email addresses
2. Validator receives automatic email once EIT complete has clicked "Submit"
3. Validators notified by email to enter the online system and rate each example, provide comments and answer a set of additional feedback questions
4. APEGS staff notified that all entries are completed and validated, assigns Assessors
5. Assessors from Experience Review Committee review the details, ratings, comments and rates each example

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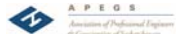
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20

Transition from the current system – part 1

- Use the new CBA system if, as of Jan 1, 2019:
 - current engineer-in-training, no experience reports submitted
 - applied to APEGS as engineer-in-training on or after Jan 1, 2019
- continued...

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Transition from the current system – part 2

- Given the choice to use the current or the new system if, as of Jan 1, 2019:
 - you are a current engineer-in-training who has submitted one or more experience reports
 - however, you are encouraged and invited to switch to the online CBA system

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22

Interim Reporting – pg 1

- Interim submission at approximately the two years of experience mark (including one year of pre-grad experience, if applicable)
- Benefit of the applicant. Also benefits Validators and Assessors
 - Ensures acceptable experience – feedback from ERC
 - Ensures correct writing style and type of information required
 - **PREVENTS RE-SUBMISSIONS** which are more common among those who have not done interim reporting
 - **RE-SUBMISSIONS MEAN RE-WORK FOR VALIDATORS AND ASSESSORS** and delays the applicant's registration as a professional
 - Is not mandatory but very strongly recommended

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23

Interim Reporting – pg 2

- Benefits the applicant
 - Ensures acceptable experience – feedback from ERC
 - Ensures correct writing style and type of information required
 - **PREVENTS RE-SUBMISSIONS** which are more common among those who have not done interim reporting
 - Prevent delay in professional registration
- Benefits Validators and Assessors
 - **RE-SUBMISSIONS MEAN RE-WORK FOR VALIDATORS AND ASSESSORS**
- Not mandatory but very strongly recommended

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Interim Reporting – How To

- Complete a minimum of 3 competency entries, at least one of which is from Category 1 - Technical Competence
 - Do more than 3 if you wish
- The online system sends notice to the validator(s) that the completed competencies are ready for validation
 - The system allows for validator feedback to the EIT until there is agreement between the two of you
- EIT notifies APEGS by email that they have an interim submission ready. **NOTE: this step is not currently automatic in the system**

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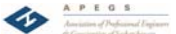
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25

Interim Reporting – What ifs, pg 1

- If I have a better example for my final submission than the one I entered for my interim submission, can I redo that competency?
 - Yes. You would email APEGS staff and tell us the specific competencies you want re-opened. Once complete, they would be sent for re-validation by the system as normal.
 - However, **if you passed that competency already, it's not necessary to redo it** even if you have a better example later.

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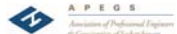
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26

Interim Reporting – What ifs, pg 2

- If I didn't do an interim submission at the two year mark, can I still do an interim submission any time after that?
 - Yes. An interim submission can still be done at any time prior to completing all of your competency entries to confirm you are writing them correctly
 - This also accommodates international graduates who come with more than 4 years of experience

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27

NEXT STEPS – CBA

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28

Bylaw Change Timeline - CBA

- April 2018 - members receive proposed bylaw changes with Annual Meeting Notice
- May 5, 2018 - Bylaw changes voted on by members present at the Annual Meeting
- January 1, 2019 - CBA comes into effect, if passed

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29

For full details:

- APEGS website, www.apegs.ca, under:
 - Members
 - Competency-Based Assessment
- Some handouts provided at the presentation
- Tina Maki, P.Eng., Director of Special Projects
 - tmaki@apegs.ca
 - 306-525-9547 or toll free 1-800-500-9547

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30

Questions



30