

APEGA Position Statement on NCDEAS request for changes to CEAB Standard

15 July 2016

APEGA acknowledges the challenges facing the HEI¹, such as providing innovative and cost-effective engineering educations. However, the actual challenges facing the HEI have not been presented and as such are not clear. APEGA desires to understand the motivation for these requested changes so we may better participate in crafting an appropriate national solution. Is the primary issue cost containment? Program flexibility? Simplifying a complicated and expensive accreditation process? Finding the appropriate solution depends on first defining the problem.

The question of the resources required by the HEI to support accreditation is a separate question that should not be conflated with the issue of the content of the standard.

APEGA is not aware of any existing Engineers Canada (EC) process or policy to guide how the CEAB standard is developed, modified and approved. Lack of policy in this area has caused ineffectiveness relative to the matter at hand. Given the importance of the CEAB standard to the regulatory community, there should be a formal, documented process in place to share proposed amendments and to obtain input from all participants (similar to that used by other standards-setting organizations like CSA).

We use the term 'standard' here deliberately, as the CEAB accreditation criteria are used by the regulatory community as the *de facto* standard for the minimum academic path. Without that standard, each regulator would need to establish a provincial standard by which to assess all applicants, including domestic graduates. This is one of the important perspectives that the regulatory community brings to this discussion.

If changes to the minimum path are implemented an alternative solution would be to impose an entry-to-practice examination, such as the Fundamentals of Engineering (FE) examination. This is an attractive option for APEGA, as it would allow a single standard applied consistently to all applicants. The benefits of such an approach are numerous, including reduced workload for academic assessments, but principally would provide a legally defensible common licensing process. APEGA has recent legal experience with this question which has heightened our awareness of the need for standardized approaches.² We believe a national exam will eventually be in place but likely in response to a significant legal challenge. We believe instead the implementation be of a proactive nature and on the desired timeline of the national regulators.

The discussion surrounding changes to the CEAB standard has also highlighted an imbalance of standing before the Engineers Canada Board of Directors. In discussions to date, there has not been direct representation from the regulatory perspective. By contrast, the NCDEAS has made presentations and provided written comment to the Board since the end of the earlier

¹ HEI = Higher Education Institution

² Association of Professional Engineers and Geoscientists of Alberta v Mihaly; 2016 ABQB 61, Mihaly v. The Association of Professional Engineers, Geologists and Geophysicists of Alberta, 2014 AHRC 1

consultation period. The role of NAOG and of course the CEO group in such discussions needs to be enhanced, to ensure the regulator's perspective is included in the discussion.

Graduate attributes (outcome based measures) will likely never be a total solution for the assessment of the quality and content of a degree program. Some input-based measures will always need to be in place. For example, even ABET maintains input-based measures through content standards (which are set by the discipline associations: (AMSE, IEEE etc).

The ultimate goal does not, however, appear to be flexibility. Rather the goal appears to be a reduction in technical curriculum content. This would have a direct impact on the regulator's ability to assume that Canadian degrees meet the minimum academic requirements for licensure. APEGA questions how the CEAB minimum path approach would be maintained with a reduction in AU, unless the minimum path contracted to reflect a reduced number of courses.

The impact of moving away from a quantitative input-based measure for the regulators would require that we begin treating Canadian graduates as foreign graduates, where we perform a course-by-course analysis of the curriculum content and assign technical examinations or a confirmatory examination (such as the FE). A move to the CEQB exam syllabus as the standard would also require that this analysis be carried out. The reality for APEGA is that we are preparing to transition our assessment of foreign graduates to the CEAB criteria, to adopt one approach as the common standard for all applicants.

There is also a historic impact in changing the standard used to define the minimum path for licensure. Shortening that minimum path now raises the question of people who were excluded, or assigned make-up requirements because of a failure to meet the minimum path. A reduction in the quantum required to meet the minimum path may now open the regulator up for challenges from those already through the process who have received outcomes other than licensure. This comment applies to both Canadian and international graduates.

To sum up, the regulator's perspective on the proposed change is that it would cause associations considerable challenge for both future and prior licensing decisions. It would not be helpful for Canada to end up as other jurisdictions, where degrees prior to a certain date met a higher standard.

APEGA is not supportive of moving the explicit requirement within article 3.4.6 for 1,950 AU to an interpretative statement. If the goal is increased flexibility, then the 1,950 AU should remain as the standard, with a provision that allows increased flexibility provided for in an interpretive statement. That flexibility could be incorporated in an interpretative statement which broadened the understanding of what initiatives could be counted against the 405 AU ARL. This could include non-traditional learning approaches such as team competitions. APEGA would also not support the expansion of that 405 AU to include experience-based academic programs such as work terms, co-operative placements, or experiential learning opportunities. Experience is assessed separately from academic content, and those alternative learning

approaches may already be used by an applicant to fulfill a portion of the 48 month experience requirement for licensure.³

³ Presently, up to 12 months of experience may be granted for experience-based learning that occurs after the 5th semester of engineering study.