

An Update on Identification of Engineering Work

What is ECSA's view on competition issues surrounding identification of engineering work?

Engineering work involves actions that; exploit the forces of nature; try to control the forces of nature; exploit natural resources and control complex processes. Doing this work without proper education, training and experience creates risks to health, life, property and the environment. It is hardly debatable that persons who have not been certified competent should be prevented from undertaking work having such risks. ECSA does not see identification of work as a competition issue between registered and unregistered persons; rather the vital issue is the effectiveness of work, the mitigation of risk and the accountability of the persons doing the work.

What is the process for identifying engineering work?

Two acts, the Engineering Profession Act (EPA) and the Council for the Built Environment (CBE) together define a process that is not without difficulty. ECSA must first define identified engineering work for all categories of registration and submit it to the CBE. Secondly, once the CBE has received the submissions from all six built environment councils, it must formulate its identification of work policy.

The CBE is the required to consult with the councils and with the Competition Commission. This step is not intended to seek permission from the Competition Commission; rather just consultation -- presumably to ensure that the CBE's mind is applied to competition issues?

The final step is for the CBE to identify engineering work: this is the actual decision on engineering work that is identified. Finally, the Minister of Public Works must publish identified engineering work as a Regulation.

Why is Identification of Engineering Work Necessary?

The EPA prohibits persons who are not registered from performing identified engineering work. The reason for this measure is to protect the public by preventing persons who do not have the necessary competence and are not accountable from doing work that has safety, health and environmental risks. It is important to note that this measure is designed to deal with unregistered people in a judicial process.

This public protection measure is distinct from those that apply to registered persons. They must follow the Code of Conduct and, in particular, not undertake work for which they are not competent by virtue of their education training and experience. A mechanism is available to the public to lodge complaints about the conduct of anyone registered with ECSA. All complaints are investigated and if there is a case to answer a tribunal is held. A registered person who is found guilty is then subject to penalties which include being struck off the register.

How has ECSA approached the definition of identified engineering work?

We need to determine the baseline characteristics required to enable the evaluation of work of competence of registered persons in a appropriate categories. There are two approaches

to a definition. First, one can define the work from the bottom up, for example, specify all the tasks that all types of practitioners do in all possible contexts and at all possible levels of demand. Given the vastness of engineering, this would be a monumental task. We could never be confident that we have a complete definition and there will inevitably be gaps.

The next approach adopted by ECSA is to identify the baseline type of work through the competencies required to ensure that the work is performed both safely and effectively. The latter approach lends itself to a generic definition that can be applied in all engineering disciplines. The practice in jurisdictions that require registration for performing engineering work follows a generic approach.

How are the categories of registration handled?

ECSA has professional, candidate and specified categories of registration. The definition of identified engineering work covers the professional categories: Engineer, Engineering Technologist, Certificated Engineer and Engineering Technician. Candidates must not take responsibility for engineering work and must work under the supervision of a professional. It is therefore not necessary to have a special definition of identified work for candidates.

The specified categories, such as Lift Inspector, are established by the ECSA Council and their work is defined in the Government Gazette notice that established the category. Specified categories do not need further definition.

Using generic competencies to identify engineering work allows work to be classified as requiring technician, technologist or engineer competencies. This is achieved through internationally benchmarked ways of defining the demands of engineering problem solving and the required underpinning knowledge for the categories.

Where are we in the process?

ECSA completed its identification of engineering work, in the form of a proposed Regulation, in August 2006. Ever since the CBE became active in 2008, there has been a regrettable difference of view on the nature and purpose of identification of engineering work. ECSA has followed the intent of the EPA, namely, to prohibit persons who are not competent and accountable from doing engineering work of a type that poses risks to the public interest.

The CBE has introduced other objectives that it expects to be simultaneously fulfilled. Identification of work must also guide persons who wish to procure engineering services by the professions describing the work in great detail. Linked to this, identification of engineering work must be done by discipline.

The CBE also wants the identification of work to demarcate the practice areas of registered persons by minutely defining what may and may not be done by persons in different categories and disciplines. The CBE Act unfortunately refers to scope of work while the other six acts require the type of work to be defined. The CBE promotes scope definitions, driven no doubt by the additional objective of guiding clients in procuring professional services.

ECSA's position is that the additional objectives are not a legal requirement and cannot practically be fulfilled for the engineering profession within in the same definition of identified work. Other objectives will be pursued by appropriate means, where justified.

ECSA has been in a mediation process with the CBE. An agreement was signed in December 2009 in which the essential purpose of identification of engineering work was recognized as providing a type definition for engineering work that could be used to prevent unregistered persons from doing work that threatens the public interest. While de-emphasizing the other objectives, the agreement left the door open slightly. There may remain a difference of opinion when the CBE finally publishes its policy.