

IDENTIFICATION OF ENGINEERING WORK STEERING COMMITTEE

An overview of the proposed Regulations
for the Identification of Engineering Work

1. Purpose of work identification in the RSA

The main purpose of work identification in South Africa is to ensure that work peculiar to the built environment is performed only by competent persons who are registered with a statutory council and who are accountable for their actions, in a manner that is consistent with government's competition policy, which protects the health and safety of the public and the environment and provides recourse in relation to aspects of professional conduct.

2 Regulatory Backdrop to the Identification of Work

- 2.1 Section 20 of the Council for the Built Environment Act (43 of 2000) requires the Council for the Built Environment to identify the scope of work for every category of registered persons after receipt of the recommendations of the councils for professions prepared in terms of their respective acts. Thereafter, a person who is not registered by the Engineering Council of South Africa (ECSA) may not perform any engineering work identified for any category provided for in the Engineering Profession Act 2000, (Act 46 of 2000).
- 2.2 Section 26(1) of the Engineering Profession Act 2000, (Act 46 of 2000) requires Engineering Council of South Africa (ECSA) to consult with recognized voluntary associations, persons, bodies and industries that may be affected by any laws regulating the built environment professions regarding the identification of the type of engineering work which may be performed by persons registered in any categories provided for in section 18 of the Engineering Profession Act, including work which may fall into the scope of any other profession regulated by the respective professions' act referred to in the Council for the Built Environment Act 2000, (Act 43 of 2000).
- 2.3 Section 26(2) of the Council of the Built Environment Act 2000, (Act 46 of 2000) requires Engineering Council of South Africa to submit recommendations to the Council for the Built Environment following such consultation.
- 2.4 In terms of section 26.(3) of the Engineering Profession Act 2000, (Act 46 of 2000), candidates and persons who are not registered may not perform work identified for registered persons unless they do so under the direct supervision and control of a person registered in the appropriate professional or specified category.
- 2.5 Section 27 of the Engineering Profession Act (46/2000), empowers the Engineering Council of South Africa to draw up a code of conduct for registered persons and to draw up codes-of-practice.

3. The thinking behind the proposals for the Identification of Engineering Work for persons registered in terms of the Engineering Profession Act

The proposals for the Identification of Engineering Work are based on the following premises:

- 3.1 Engineering work identified for the **professional categories** of registration should be generic in nature. No attempt should be made to establish boundaries between disciplines and sub-disciplines within engineering work. The approach should rather be to establish the boundary between work identified for engineering professionals and those who are not. Reliance should be placed on codes of conduct and codes of practice to determine what work within the identified work such professionals may undertake that is commensurate with their education, training, experience and contextual knowledge.
- 3.2 Engineering work may be identified by considering whether or not work falls within a listing of broad types of work, involves general characteristics in its execution, requires certain functions to be performed and requires minimum competencies for its execution. Engineering work is work where an affirmative answer is obtained in all of the aforementioned descriptors.
- 3.3 Artisans such as workers skilled in a trade, mechanics, operators and craftsmen and managers of very small and micro enterprises involved in construction works and mining activities are exempt from the need to be registered.
- 3.4 Persons registered within a particular category of professional registration may perform work within a range of characteristics identified for each category of registration. They may perform work within the range of another category should they deem themselves competent to do so by virtue of their education, training, experience and contextual knowledge.
- 3.5 There will always be overlaps between the different professions. Instead of trying to resolve the boundaries between professions, persons who are professionally registered with statutory councils other than Engineering Council of South Africa should be allowed to perform any work which falls within the overlaps provided that their education, training, experience and contextual knowledge have rendered them competent to perform such work. However, where such persons regularly and consistently perform engineering work and take responsibility for such work, such persons must become registered with Engineering Council of South Africa.
- 3.6 The **specified category** provided for by section 18.(1)(c) of the Engineering Profession Act 2000, (Act 46 of 2000), may be used to allow persons who are not able to register in the professional categories to perform aspects of engineering work identified for registered persons. In exceptional cases, it may be used to address discipline specific or specialist areas of engineering work performed by those registered in the professional categories. This, however, introduces dual registration and necessitates that the work performed by persons be separately identified in the Regulations.
- 3.7 Foreign engineers performing identified engineering work without supervision in South Africa and who takes responsibility for such work, must become registered with the Engineering Council of South Africa.
- 3.8 Codes of practice issued by the Engineering Council of South Africa in terms of Section 27 of the Engineering Profession Act 2000, (Act 46 of 2000), may be used to set standards of acceptable professional practice, to provide clarity and substance to a range of issues relating to discipline specific work or work within specific areas and to clarify the overlaps between categories of registered persons.
- 3.9 It is implied in the regulations that the time period for becoming registered is reasonable and is the same for all practice areas so that no person is prejudiced by the registration process.

4. Engineering Council of South Africa's Identification of Engineering Work Project

Engineering Council of South Africa established an Identification of Engineering Work Steering Committee to develop proposals for the identification of engineering work. This committee has proposed regulations for the identification of engineering work for promulgation in terms of the Council for the Built Environment Act 2000, (Act 43 of 2000). Engineering Council of South Africa has forwarded these proposed regulations together with an explanatory memorandum as its recommendations to the Council for the Built Environment (see www.ecsa.co.za).

5. What Constitutes Engineering Work?

Engineering work is work which, in terms of the proposed regulations and with respect to **Table 1**, involves in its execution one or more identified characteristics (column 1), falls within the scope of listed types of work (column 2), requires for its performance any of a number of identified functions (column 3) and minimum levels of competencies (column 4). Work which falls within the identified types of work and does not in its execution have at least one of the identified characteristics, require any of the identified function or require the stated competencies does not constitute engineering work.

Extract from Table 1: What constitutes engineering work

1	2	3	4
Characteristics	Types of work	Functions	Competencies
<p>Involves one or more of the following:</p> <ul style="list-style-type: none"> • investigation and solving of problems and design solutions; • application of knowledge and engineering technology, based on mathematics, basic sciences and engineering sciences, information technology as well as specialist and contextual knowledge; • management of engineering works; • the addressing of the impacts of engineering work; or • the exercising of judgment and the taking of responsibility for engineering work. 	<p>Falls within the scope of the following:</p> <ul style="list-style-type: none"> • transportation systems • civil works • structural works • mechanical systems • works for the harnessing of energy • electrical power systems • electronic systems • process systems • mining operations or activities • treatment of any substances • building services • lightning protection measures. • overseeing ECSA accredited programmes at the exit level. • mentoring of candidate engineering practitioners. 	<p>Requires in its performance any of the following:</p> <ul style="list-style-type: none"> • design • planning • investigating, advising, costing, reporting and auditing • improvement or optimisation; • management, procurement and maintenance • implementation; • application of the results of research and development • management of risk; • communication of the impacts and outcomes; and • education, training and mentoring of engineering personnel 	<p>Requires in its performance minimum competencies relating to the:</p> <ul style="list-style-type: none"> • definition, investigation and analysis of engineering problems • design or development of solutions to engineering problems • conduct of engineering activities in an ethical manner

- NOTES:**
1. The full text of what constitutes identified engineering work, can be accessed on the Engineering Council of South Africa Website (see www.ecsa.co.za).
 2. Other relevant Identification of Engineering Work-related supportive documents are also available on the Engineering Council of South Africa website.

6. What happens after the Minister promulgates the IDoEW regulations

No persons shall, after the transitional period set in the regulations by the Minister, be permitted to perform and take responsibility for such identified engineering work in South Africa, unless they are registered in the appropriate category with Engineering Council of South Africa or perform such work under the direction, control and supervision of a registered person. Persons who are professionally registered with other statutory bodies may in the course of practicing their profession, perform and take responsibility for such identified engineering work provided that their education, training, experience and contextual knowledge have specifically render them competent to perform such work subject to the exemption requirements of section 7 of the Engineering Profession Act, 2000 (Act 46 of 2000).