Engineering Council of South Africa

IDENTIFICATION OF ENGINEERING WORK

Introductory Document

1. Purpose

ECSA has published regulations on the identification of engineering work for which registration in a professional category is required. This note sketches the motivation, how work is identified and summarises the consequences for different groups of persons.

2. Nature of Engineering Activity

Engineering activity encompasses initiatives, services and the solution of problems that are of importance to society and the economy. Engineering activity involves one or more of the following:

- exploitation of natural resources;
- harnessing of energy for useful purposes;
- use of materials and substances with useful physical or chemical properties;
- use of machinery and equipment;
- transfer, storage and processing of information;
- construction, maintenance, refurbishment and deconstruction of buildings and engineering infrastructure; and
- organisation and control of systems or processes.

While these activities support economic activity, the creation and maintenance of infrastructure generally bring benefits to society, each has accompanying risks to the health and safety of people or the environment. Because of these risks, work must be performed without compromising safety, health and environmental standards and taking sustainable development imperatives into account. While minimising the risks, engineering work must also be effective: enhancing benefits commensurate with costs. Safe, environmentally sound and effective engineering work depends on the competence of practitioners.

3. Engineering: a Regulated Profession

Engineering is a regulated profession to assure that engineering practice is in the public interest. Regulation involves setting standards for qualifications, practice, and ethics; assessment against the standards, award of professional titles to persons assessed competent; promoting best practice and the investigation of complaints and imposing sanctions in the case of misconduct.