



Navigating the Identification of Engineering Work— a call for professional registration



For a while now, I have been aware of the Identification of Engineering Work (IDoEW) being developed by the Engineering Council of South Africa (ECSA). It was only after attending an ECSA presentation recently, engaging in discussions, and conducting further research that I came to appreciate the far-reaching impact this initiative will have on the engineering profession and particularly on the mining industry.

When I graduated as a civil engineer, I understood the importance of registering as a Professional Engineer (Pr. Eng.) with ECSA to be able to take accountability for the design, construction, supervision, and certification of civil engineering projects where failure could result in loss of life or significant damage. This model of professional oversight mirrors other regulated disciplines such as law, medicine, accounting, and architecture, ensuring competence, accountability, and ethical conduct.

The IDoEW framework now formalises these same principles across all branches of engineering.

The IDoEW framework

After many years of consultation, ECSA finalised the IDoEW framework in March 2021 and published the rules in the Government Gazette on 26 March 2021 under Section 26 of the Engineering Profession Act 46 of 2000.

The framework defines which categories of engineering work must be performed or supervised by registered professionals, whether professional engineers (Pr. Eng.), professional engineering technologists (Pr. Tech Eng.), professional engineering technicians (Pr. Techni Eng.), or professional certificated engineers (Pr. Cert Eng.). This applies across all disciplines, including mining, mechanical, civil, electrical, metallurgical, chemical, control and instrumentation, and industrial engineering.

While full implementation was initially planned for March 2024, the compliance deadline was extended to April 2025 to allow industries sufficient time to align their structures, policies, and personnel.

Implications for the mining industry

Compliance is now a legal requirement for anyone performing identified engineering work under the Engineering Profession Act 46 of 2000. Historically, ECSA registration levels in the mining sector have been low, meaning a concerted effort will be required to achieve full alignment.

Typical mining activities falling within “identified engineering work” include:

- Mine design and planning — shafts, slopes, stopes, and ventilation systems.
- Life-of-mine (LoM) planning and production optimisation.
- Mineral project evaluation and valuation.
- Rock engineering and geotechnical design.
- Infrastructure, equipment design, maintenance, and process-plant engineering.

Mining companies must ensure that such work is executed or signed off by registered professionals, and that unregistered staff perform their duties under appropriate supervision. This may require upskilling programmes, policy revisions, and the integration of registration status into recruitment, role descriptions, and career development frameworks.

Non-compliance constitutes a statutory offence. In terms of Section 41 of the Act, offenders may face fines of up to double the professional fee earned, penalties equivalent to three years’ imprisonment, or disciplinary action. The message is clear — engineers must be registered and must maintain their registration.

President's Corner (continued)

Alignment with the Mine Health and Safety Act (MHSA)

It is important to note that compliance with the IDoEW does not replace or override the statutory obligations of the Mine Health and Safety Act (MHSA). The two frameworks operate in parallel, each addressing a different but complementary aspect of professional accountability.

Under the MHSA, certain key roles, such as mine manager, section engineer, and rock engineer, require a Certificate of Competency or "ticket" issued by the Department of Mineral Resources and Energy (DMRE). These legal appointments ensure operational safety and compliance with mining legislation.

The IDoEW, on the other hand, governs the professional accountability for engineering design, analysis, and technical decision-making, requiring registration with ECSA. In many cases, both credentials may be necessary, for example, a section engineer responsible for the design, operation, and maintenance of mining systems may need both a DMRE certificate (to satisfy MHSA legal appointment requirements) and ECSA registration (to perform and sign off identified engineering work under the Engineering Profession Act).

In practice, mining companies should assess each role to determine whether a legal appointment, professional registration, or both are required, ensuring that accountability and competence are fully covered across operational and engineering domains.

How SAIMM supports compliance

As a recognised voluntary association (VA) under ECSA, the SAIMM is well positioned to assist the mining industry in managing this transition. Our support includes:

1. Information and awareness – publishing updates, articles, and hosting seminars to clarify IDoEW requirements.
2. Mentorship and facilitation for registration – connecting candidate engineers with experienced mentors through our networks and the Young Professionals Council (YPC) and assisting members with the registration process.
3. Liaison and advocacy – engaging directly with ECSA on behalf of our members to address mining-specific issues and ensure practical implementation.
4. Continuing professional development (CPD) – offering accredited events, conferences, and courses. Registered professionals must accumulate 25 CPD credits every five years; SAIMM membership earns one credit per year, and participation in committees or volunteer activities also qualifies.

Corporate partnership with SAIMM extends these benefits to company professionals, providing access to technical programmes, mentoring support for registration, and structured CPD pathways.

A call to action

Every engineer, technologist, and technician involved in identified work must ensure that they are registered or actively working toward registration. Maintaining professional standing through ongoing CPD will be equally important.

The introduction of the IDoEW marks a major step forward in strengthening South Africa's engineering standards and safeguarding the public interest. The SAIMM remains committed to supporting our members and the broader mining industry through this critical evolution in professional practice.

G.R. Lane
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