

THE NEW ELECTRICAL INSTALLATION REGULATIONS

The long awaited new Electrical Installation Regulations (not to be confused with the Wiring Code SANS 10142-1) were published in the Government Gazette on 6 March 2009. The Regulations become effective on 1 May 2009, but regulation 5(6) will only become effective on 1 April 2010.

The draft Regulations have appeared in various forms and have been under discussion since 2001, and much acrimonious debate has taken place. However, with one or two exceptions which I will mention below, they are a great improvement on the current Regulations that were published in October 1992, and bring a lot more clarity and control.

Set out below are the changes that are to take place. However, the ECA(SA) together with the Department of Labour, the Electrical Contracting Board of South Africa, and the Association of Accredited Inspection Bodies of South Africa will be having road shows in all of the Provinces to explain the Regulations and how they will affect electrical contractors. Details of these road shows will be circulated as soon as the dates and venues have been finalised.

The principal changes that have taken place are as follows –

DEFINITIONS

- “**certificate of compliance**” has now been defined as a certificate with a unique number **obtainable from the Chief Inspector, or a person appointed by the chief inspector**, in the form of Annexure 1, and issued by a registered person in respect of an electrical installation or part of an electrical installation; or a certificate of compliance issued under the Electrical Installation Regulations, 1992. (This is addressed further in this article).
- “**electrical installation**” has been amended to exclude control circuits of 50 volts or less between different parts of machinery or system components, forming a unit, that are separately installed and **derived from an independent source or an isolating transformer**”. (It would appear that this refers primarily to instrumentation).
- “**general control**” has now been defined and means “in relation electrical Installation work that is being carried out, includes instruction, guidance, and supervision in respect of that work”.
- “**installation work**” has been amended to include “the inspection, testing and verification of electrical installations for the purposes of issuing a certificate of compliance”.

- “**point of control**” has been amended to include “the point at which a particular part of an electrical installation on or in any premises can be switched off where different users occupy different portions of such premises.”
- “**registered person**” replaces “accredited person”. (This is because “accredited” is in conflict with some other legislation)

RESPONSIBILITY FOR ELECTRICAL INSTALLATIONS

This regulation has been amended to include a provision that allows a written undertaking between the lessor (owner) and the lessee (tenant) to transfer the responsibility for the electrical installation to the lessee. In such instances the lessee becomes responsible for the installation as if he or she were the user or lessor (owner). If no such agreement exists the lessor is responsible. This is quite onerous because I am not sure how the lessor is necessarily aware of any electrical problems or interference that takes place on the installation.

APPROVED INSPECTION AUTHORITIES

Approved Inspection Authorities for electrical installations (AIAs) have now been officially introduced. Such authorities must first be accredited by the South African National Accreditations System (SANAS), whereafter they may apply to the chief inspector to become an AIA.

FUNCTIONS OF AIAs

The AIAs will not be permitted to operate as electrical contractors. In addition, they may only enter premises and conduct inspections, tests or investigations when contracted by the Chief Inspector or Provincial Director of the Department of Labour to do so; or are requested to do so by the user or lessor of an electrical installation.

DESIGN AND CONSTRUCTION

- Regulation 5(1) provides that “**No person may authorise, design, install or permit or require the installation of an electrical installation, other than in accordance with a health and safety standard incorporated into these Regulations under section 44 of the Act**”. In a separate Notice the Minister has incorporated into the Regulations the following safety standards –
 - a) SANS 10086 – 1: The installation, inspection and maintenance of electrical equipment used in explosive atmospheres Part 1: Installations including surface installations on mines;

- b) SANS 10089 – 2: The petroleum industry – Part 2: Electrical and other installations in the distribution and marketing sector;
 - c) SANS 10108: The classification of hazardous locations and the selection of apparatus for use in such locations; and
 - d) SANS 10142 – 1: The wiring of premises Part 1: Low-voltage installations.
- Regulation 5(5) it states that **“where the voltage exceeds 1kV, a person deemed competent in terms of paragraphs (b), (c) and (d) of the definition of a competent person in regulation 1 of the General Machinery Regulations, 1988, or a person registered in a professional category in terms of the Engineering Profession Act, 2000, shall approve the design of that part of the installation”**.

The competent persons referred to in paragraphs (b), (c) and (d) are those who have obtained an engineering diploma in electrotechnical (heavy current); a graduate engineer who has not less than two years' relevant post graduate practical experience; and a certificated engineer, respectively.

This requirement will be effective from 1 May, so every design where the voltage exceeds 1kV will have to be approved, and it is presumed that this will also affect jobs in progress.

NOTE: SANS 10142 - 2 – The Code for Medium voltage installations above 1kV ac and not exceeding 22 kV ac and up to and including 3 000 kW capacity has been finalised and will shortly be incorporated into the Regulations as a further health and safety standard. Further details will be provided in due course.

- Regulation 5(6) will only come into effect on 1 April 2010. This states **“ Where the intention is to supply five or more users from a point of supply, the user shall appoint an approved inspection authority for electrical installations, or a person deemed competent in terms of paragraphs (b), (c) or (d) of the definition of competent person in regulation 1 of the General Machinery Regulations, 1988, or a person registered in a professional category on terms of the Engineering Profession Act 2000, who shall ensure the compliance contemplated in subregulation (1) from the commencement to the commissioning of the electrical installation.”**

During both the drafting process and subsequently the ECA(SA) has pointed out to the Department of Labour that there are not enough AIAs or “competent” persons in South Africa able to carry out the supervision of every such installation from commencement to commissioning. It was also pointed out that this requirement will not only add considerably to the

cost of electrical contracts, but could adversely affect many contracts, particularly in the more remote areas where such supervision will be very costly. It is for this reason that its implementation has been deferred for a year, but it will have to be further addressed because of its impracticality.

ELECTRICAL CONTRACTOR

- Regulation 6(1) states “**No person may do electrical installation work as an electrical contractor unless that person is registered as an electrical contractor in terms of these Regulations**”.
- Instead of the ECB being named as the registration authority, regulation 6(2) states “**Any person who does electrical installation work as an electrical contractor shall register annually in the form of Annexure 1 with the chief inspector or a person appointed by the chief inspector.**” The Chief Inspector has indicated that he wishes the ECB to continue performing this function on his behalf for the time being, and all those electrical contractors who have registered for 2009 will not have to re-register this year.
- Regulation 6(4)(b) states that the contractor must employ “**a registered person in a full-time capacity, or is himself or herself a registered person**”. This should help to close the loop hole where numerous registered persons (Master Installation Electricians, Installation Electricians and Single Phase Testers) are allowing persons to use their licences and are merely signing off the work when it has been completed.

CERTIFICATE OF COMPLIANCE

- There is now a basic COC (Annexure 1) which “**shall be accompanied by a test report**”. The Department is to arrange for the new COCs to be printed and distributed for sale, and has indicated that **the current certificate of compliance may be used as the test report**. Once the Department has provided more information on this matter all electrical contractors will be informed.
- A time period has now been placed on a COC when a property is being sold. The seller will now be required to obtain a new certificate if it is older than two years.

ISSUING OF CERTIFICATE OF COMPLIANCE

- Regulation 9(2) states that “A registered person may issue a certificate of compliance accompanied by the required test report only after having satisfied himself or herself by means of an inspection and test that –
 - (a) a new electrical installation complies with the provisions of regulation 5(1) **and was carried out under his or her general control**; or

- (b) an electrical installation **which existed prior to** the publication of the current edition of the health and safety standard incorporated into these regulations (i.e SANS 10142 – 1) complies with the general safety principles of such standard; or
 - (c) an electrical installation referred to in paragraph (b), to which extensions or alterations have been affected, that –
 - (i) the existing part of the electrical installation complies with the general safety principles of such standard and is reasonably safe; and
 - (ii) the extensions or alterations effected comply with the provisions of regulation 5(1) and were carried out under his or her general control.
- Provided it is policed paragraphs (a) and (c)(ii) should stop people getting unregistered persons to do their work and then getting it signed off by a registered person.
 - Regulation 9(4) makes it a requirement for any person who undertakes electrical installation work to issue a valid COC for such work.

DISPUTES

No changes have been made to this regulation apart from changing the title from Appeals to Disputes, which makes perfect sense.

APPLICATION FOR REGISTRATION AS A REGISTERED PERSON

Apart from referring to a registered person instead of an accredited person, the only change made is to create a new regulation 12 “**Withdrawal of registration and approval**” which covers the authority of the Chief Inspector to withdraw the approval of AIAs, the registration of electrical contractors, and the certificates of registration of registered persons. However, a new sub-regulation has been included to allow such persons to appeal to the Director-General against such decisions.

SUBSTITUTION OF LOST, DAMAGED OR DESTROYED CERTIFICATE

No changes.

FEES PAYABLE

A set fee of R120 has been prescribed for the registration as AIAs, electrical contractors, and the registration of registered persons.

This is less than the ECB's current registration fee, but it is consulting with the Department to include an administration fee otherwise it will be unable to meet the costs in providing this service.

OFFENCES AND PENALTIES

The maximum period of imprisonment for contraventions or failure to comply with the Regulations has been changed from six months to twelve months, and in the case of a continuous offence the additional fine has been increased from R100 to R200 for each day the offence continues.

REPEAL OF REGULATIONS

The current regulations will be repealed at midnight on 30 April 2009.

It is hoped that this synopsis of the new Regulations will be of benefit to all electrical contractors, but further information and clearer explanations will be provided at the roadshows.

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7 April 2009