



WRAPPING UP INSTALLATION REGULATIONS (2009)

Over the past couple of instalments, we have been chatting in depth about the registration of various categories of accredited persons and of electrical contractors. We, of course, based our discussions on the Electrical Installations (2009) (EIR) that forms part of the Occupational Health and Safety Act (Act 85 of 1993). We also undertook a whistle-stop tour of the first few pages of the latest Installation Rules for the Wiring of Premises, namely SANS 10142-1: 2017 Edition 2.

We finally come to the last few Regulations of the Electrical Installation Regulations (2009) and I trust it has been as enlightening for you as it has been for me – re-reading them and having to explain the process on paper has been a totally different experience for a change. I confirmed one or two items again which incidentally, cropped up in the workplace recently.

I have not decided where to go from here – there are the General Machinery Regulations, the Electrical Machinery Regulations and a couple of others that have a direct bearing on our daily working lives, not forgetting the latest SANS 10142-1. But let us wrap up the Installation Regulations (2009) for now, and give me some time to think about what angle of attack I'll have next month.

So, Regulation 12 of the EIR reads:

Withdrawal of registration and approval

12. (1) Subject to the provisions of sub-regulation (2), the chief inspector may withdraw an approval issued to an approved inspection authority, a registration issued to an electrical contractor or a certificate of registration issued to a registered person if such person

- (a) no longer complies with any of the conditions referred to in regulation 3(2)(a), 6(4) or 11(2), respectively; or
- (b) is convicted of an offence referred to in regulation 15.

Right, the law makes provision for someone's license to be pulled. The first instance refers to a person not complying with the conditions for registration and the second instance refers to a person found guilty of an offence.

The conditions referenced are Regulation 3(2)(a) which refers to the accreditation certificate of an Authorised Electrical Inspection Authority. Regulations 6(4) and 11(2) refer to the conditions which apply to the Electrical Contractor and Accredited Person registration.

Instead of repeating everything here, I'll pull the famous SANS trick and refer you to Regulation 15 further down to see what the offences are that can cost me my licence or accreditation.

(2) The chief inspector may not withdraw a registration or an approval unless he or she has

- (a) informed the holder of such registration or approval of the intended withdrawal thereof and of the grounds upon which it is based; and
 - (b) afforded such holder a reasonable opportunity to state his or her case and, if the holder is a person contemplated in sub-regulation (1)(a), afforded such holder an opportunity to comply with those conditions within the period specified by the chief inspector.
- (3) The chief inspector shall, in writing, inform the person concerned of the reasons for his or her decision.
- (4) Any person adversely affected by a decision of the chief inspector may, in writing, appeal to the Director-General against such decision.
- (5) An appeal referred to in sub-regulation (4) shall
- (a) be lodged within sixty days from the date on which the decision was made known; and
 - (b) set out the grounds of appeal.
- (6) After considering the grounds of appeal and the chief inspector's reasons for his or her decision, the Director-General shall as soon as practicable confirm, set aside or amend the decision.

Regulation 12(2, 3, 4, 5 and 6) is oh so politically correct. I detest the 'ag shame' treatment of people who break the law.

Substitution of lost, damaged or destroyed certificate

13. (1) If any registration certificate issued in terms of these regulations to an electrical contractor or a registered person is lost, damaged or destroyed, the person to whom the certificate was issued may apply to the chief inspector for a duplicate certificate in the form of Annexure 6, together with the relevant registration fee prescribed by regulation 14.

(2) After proof that a certificate referred to in sub-regulation (1) has been lost, damaged or destroyed has been submitted to the satisfaction of the chief inspector, the chief inspector shall issue a duplicate thereof on which the word "duplicate" shall appear.

Let's face it, this can happen to anyone. My original 'Yellow Ticket' landed up in the wash! Others lose theirs when people take from them what does not belong to them. Regulation 13 makes provision to replace such lost or stolen certificates.

Fees payable

14. The fees payable in respect of an application in terms of regulation

3(2), 6(3) and 11(1) or a duplicate certificate of registration in terms of regulation 13(1) shall be R120 and shall be payable in the form of uncanceled revenue stamps affixed to the application form when payable to the chief inspector.

The saying goes, 'Betaal is die wet van Transvaal'. Yep, you have to pay someone to do the administration with regard to your certificates. What we have to note, however, is the use of 'revenue stamps' has ceased. The South African Revenue Service (SARS) abolished the Stamp Duty Act (77 of 1968) at midnight on 31 March, 2009.

Now, let's see what can land you in jail...

Offences and penalties

15. Any person who contravenes or fails to comply with any of the provisions of regulations 3(3), 4, 5, 6(1), 7, 8, 9, 11(4) and 11(5) shall be guilty of an offence and liable upon conviction to a fine or to imprisonment for a maximum period of 12 months and, in the case of a continuous offence, to an additional fine of R200 for each day on which the offence continues or to additional imprisonment of one day for each day on which the offence continues: Provided that the period of such additional imprisonment shall not exceed 90 days.

As stated earlier, when we discussed the issue of losing a license.

Let's have a look at them. The first offence can be found in regulation 3(3), which refers to the Authorised Inspection Authority (AIA) neglecting to inform the Chief Inspector of any change affecting his/her approval.

Regulation 4 refers to Functions of approved inspection authorities for electrical installations. Regulation 5 refers to Design and construction. Regulation 6(1) refers to your registration as an electrical contractor. Regulations 7, 8 and 9 refer to the Certificate of Compliance, Commencement and permission to connect installation work and issuing of Certificate of Compliance.

Regulation 11(4) refers to the fact that an accredited person is obliged to produce his/her certificate if requested by an AIA or a Supplier of Electricity, for instance. Regulation 11(5) refers to any changes that can affect the registration of an accredited person.

Now, if the Department of Labour would practice what it preached, we would all have a safer and more compliant electrical industry. But perhaps it's too much to ask. It has not done anything of this nature since I joined the industry 37 years ago – why would it get going now, all of a sudden?

Till next time.

MOTOR CONTROL CENTRES FOR FOSKOR PHALABORWA

JB Switchgear Solutions (JBSS) was recently awarded two contracts for the design, manufacture and supply of motor control centres destined for the 300 ft. area and drier 4 and 5 at Foskor's Phalaborwa operations. The slurry from the plant comes into thickeners in the 300 ft. area where the water is separated from the slurry.



Said water is then sent back into the plant for process requirements, whilst the left over slurry is pumped into the tailings dam through a pump station downstream.

There are six driers on the plant. The MCCs for driers 4 and 5 are being replaced. The phosphate produced goes through the driers to remove excess moisture to achieve the correct level to meet customer requirements. When the phosphate comes from the filter plant the moisture level is typically around 8-9%. Once it has passed through the driers, the moisture content is reduced to around 1,5 – 2%. A positive spin-off is weight reduction when the product is transported to its destination.

For the 300 ft. area, the MCC was equipped with two 3200 A incomers and buscoupler, feeding a variety of DOL starters, feeders and large soft starters up to 315 kW. JBSS offered a full Siemens solution with Simocode Pro V intelligent overloads. Component selection complied with the 525 V, 50 kA, Type 2 co-ordination requirements of the plant. JBSS provided its 'Eagle' series panel in back-to-back configuration. The incomers were top-entry, while all starters and feeders were bottom entry. The MCCs for driers 4 and 5 were equipped with 1250 A incomers feeding a variety of DOL starters, feeders, VSDs and soft starters ranging between 0,75 kW and 160 kW.

Front-and-rear access 'Eagle' series panels were used for the driers, featuring Form 3b segregation and equipment selected for 525 V, 50 kA application. JB Switchgear's 'Eagle' series of motor control centres carry type test certification for compliance with SANS-IEC 61439 and SANS-IEC/TR 61641, with more than 31 000 tiers installed throughout Southern Africa and abroad.

Enquiries: +27 (0)11 027 5804

ALTERNATIVE WATER HEATING SYSTEMS

WITH the latest tariff hikes placing more pressure on consumers, it is becoming increasingly important to find alternatives for the largest energy consuming appliances in the home. This is according to Cala van der Westhuizen, Head of Marketing and Sales at Energy Partners Home Solutions, a division of Energy Partners and part of the PSG group of companies, who says that water heating accounts for as much as 50% of a household's electricity use.

"Replacing a home's conventional geyser with a renewable energy alternative is one of the first steps to decreasing an average home's monthly electricity spend. The current renewable energy powered water heating options available to homeowners are heat pumps and solar water heaters."

"A solar water heater is much easier to install than a heat pump, and the total cost of an average 200 ℓ system is around R 26 000. In the short-term, this is cheaper than an average heat pump with a 300 ℓ efficient tank system, which costs around R 35 500," he explains.

Solar water heating systems can also be expected to last for over ten years, while heat pumps generally need to be replaced

after five to ten years. The efficiency of a solar heating system fluctuates between 45% and 70%. This comes down to an average drop in energy costs by approximately 54% over the course of one year.

In contrast, a heat pump system is only slightly affected by variations in temperature, and therefore it runs efficiently at any time of day, says Van der Westhuizen. "It requires approximately one-third of the energy of a conventional geyser to heat the same amount of water, resulting in an average energy saving of up to 70%. This results in a cumulative cost saving of around R 62 500 for a standard four member household using an average of 52 ℓ of warm water per person over a ten year period. By comparison, a solar heating system achieves around R 59 500 in savings under the same conditions," he adds.

Heat pumps are consistent, rely on air, and can cut the cost of water heating by more than any other system currently on the market," Van der Westhuizen concludes.

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MEANINGFUL TRANSFORMATION

ENERGY ENGINEERED PRODUCTS and associate companies, Multi Alloys and E-Metals Cape, have attained a Level 4 Black Economic Empowerment (BEE) contributor status. Aiming for Level 4, the organisations embarked on addressing all the elements on the score card. "In addition to focusing on our long-established programmes - investment in people and skills, training, socio-economic investments and procurement, we went a step further, addressing the B-BBEE ownership element of the scorecard to achieve the best possible rating," says Graham Whitty, director of Business Development at Energy Engineered Products. "Our significant and continued investment in our most important asset, our people, and developing their skills bears testament to our commitment and has proved to be invaluable as it has allowed us to steadily promote people to leadership positions."

Ownership, the final pillar on the BEE scorecard, proved to be the most challenging according to Whitty. "Two of our senior sales managers, Rowena Surneerchand and Anesh Prithilall, were recently welcomed as shareholders in the business in recognition of their ongoing dedication and commitment."

With the fundamental belief that skills and education are the drivers of transformation in South Africa, the organisation has been focusing on social-economic investments, providing support for education to previously disadvantaged people. In conclusion, Whitty says that while there are many challenges facing South Africans, opportunities to make a meaningful difference abound. "By taking small but consistent steps within your own sphere of influence, it is possible to collectively make a difference."

Enquiries: +27 (0)11 466 1926