

Standard

Distribution

Title: MANAGEMENT OF

CERTIFICATES OF

COMPLIANCE FOR ELECTRICAL

INSTALLATIONS

Unique Identifier: **240-170000465**

Alternative Reference Number: 34-962

Area of Applicability: Engineering

Documentation Type: Standard

Revision: 3

Total Pages: 20

Next Review Date: October 2030

Disclosure Classification: Controlled Disclosure

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Date: 2025 10 01 Date: 01 October 2025 Date: 01/10/2025

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PCM Reference: 240-45920887

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1. Introduction

The safe and compliant operation of electrical installations within Eskom Distribution requires a structured approach to the management of Certificates of Compliance (CoCs). This document outlines the standards, responsibilities, and documentation requirements associated with the issuance and control of CoCs across various installation types, including substations, electric fencing, Small-Scale Embedded Generation (SSEG) systems, and customer-owned electrical supplies.

Eskom operates under multiple regulatory roles: as a contractor, an owner or lessor of electrical installations, and a supplier of electrical energy and is accountable to the Chief Inspector under the Occupational Health and Safety Act (OHS Act). Accordingly, this framework integrates Eskom's internal standards with national regulations such as SANS 10142-1, SANS 10142-2 the Electrical Machinery Regulations (EMR), and the Electrical Installation Regulations (EIR).

This document provides clear guidance on:

- The type of CoC required for each installation category.
- The responsible party for issuing CoCs based on ownership and supply arrangements.
- The inclusion of statutory inspection sheets and minimum testing templates, particularly where exemptions apply.

By standardizing CoC management practices, Eskom ensures consistent legal compliance, operational safety, and accountability across all electrical installations.

2. Supporting clauses

2.1 Scope

This document outlines the compliance requirements for electrical installations as defined by the Electrical Installation Regulations (EIR), with specific emphasis on low-voltage auxiliary supply networks in substations and Small-Scale Embedded Generation (SSEG) systems. Unlike previous interpretations, this standard affirms that substations—particularly their AC and DC auxiliary systems—are subject to compliance and must be supported by valid Certificates of Compliance (CoCs). Furthermore, all SSEG installations, whether grid-tied, hybrid, or off-grid, must be signed off by appropriately registered persons and included in the CoC process to ensure full alignment with the OHS Act, SANS 10142-1, SANS 10142-2 and NRS 097 standards, as well as SANS 10142-1-2 once published.

2.1.1 Purpose

The purpose of this standard is to set out a standard process for the MANAGEMENT OF CERTIFICATES OF COMPLIANCE FOR ELECTRICAL INSTALLATIONS.

2.1.2 Applicability

This procedure is applicable to Eskom Distribution Group and the contractors employed by the division.

2.2 Normative/informative references

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

- [1] Occupational Health and Safety Act No 95 of 1993: Electrical Installation Regulations;
- [2] SANS 10142-1: Wiring code of practice for Low Volt Electrical installations;
- [3] 240-130892449, Split Meter Small Power Distribution Unit Ownership Philosophy;

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[4]	Exemption by the Chief Inspector: EIR 7(1); and
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- [5] SCSREAAF6: Report Eskom Distribution electrification and reticulation project.
- [6] SANS 10142-1-2 once published
- [7] NRS097-2-1 & NRS097-2-3
- [8] SANS 10222-3
- [9] SANS 60335-2-76
- [10] SANS 1619
- [11] SANS 10142-2 Medium-voltage installations above 1 kV a.c. not exceeding 22 kV a.c. and up to and above 3 MVA installed capacity

2.2.2 Informative

- [12] 32-9, Definition of Eskom documents; and
- [13] 32-644, Eskom documentation management standard.

2.3 Definitions

2.3.1 General

Definition	Description	
Certificate of Compliance (CoC)	"Means a certificate in the form of the EIR Annexure 1 issued by an accredited person in respect of an electrical installation or part of an electrical installation."	
Electrical Installation	"Means any machinery, in or on any premises, used for the transmission of electricity from a point of control to a point of consumption anywhere on the premises, including any article forming part of such an installation irrespective of whether or not it is part of the electrical circuit, but excluding - a) Any machinery of the supplier related to the supply of electricity on the premises, b) any machinery used for the transmission of electricity of which the voltage shall not exceed 50 Volt where such energy is not derived from the main supply of a supplier, c) Any machinery which transmit electrical energy in telecommunication, television or radio circuits, d) and electrical installations on a vehicle, vessel, train or aircraft"	
Accredited person	"Means a person registered in terms of Regulation 9 (EIR) as an electrical tester for single phase, an installation electrician, or a master installation electrician, as the case may be".	
Chief Inspector	"Means the officer designated under Section 27 as chief inspector, and includes any officer as chief inspector."	
Supplier	"In relation to a particular electrical installation, means any local authority, statutory body or person who supplies or contract or agrees to supply electricity to that electrical installation"	

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Definition	Description		
General control	"Means that the Registered Person must:		
	Define what work is to be done,		
	Specify how the work is to be done,		
	Determine what tools and equipment are to be used,		
	Decide when and where the work is to be done,		
	Sample test completed work to ensure compliance,		
	Periodically observe the installer performing the work (e.g., biannually),		
	 Maintain overall responsibility for the safety and compliance of the installation. 		
	The Registered Person does not need to be physically present at all times but must exercise effective oversight and ensure that the work meets the standards set out in SANS 10142-1 and the EIR.		
	For purposes of this document and applicable to installations >1kV but ≤ 22kV, SANS 10142-2 defines and specifies the roles and responsibilities of the Registered Person.		

2.3.2 Disclosure classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

2.4 Abbreviations

All abbreviations in ORHVS and NRS 082, as well as the following, are applicable:

Abbreviation	Description	
AC or a.c.	Alternating Current (a.c. as used in SANS 10142)	
СРМ	Control Plant Maintenance	
DC or d.c.	Direct Current (d.c. as used in SANS 10142)	
DX	Eskom Distribution	
EIR	Electrical Installation Regulation	
ITC	Inspection and Test Certificates	
CMMS	Computerised Maintenance Management System (Maximo)	
CoC	Certificate of Compliance	
EMR	Electrical Machinery Regulations	
ERE	Eskom Real Estate	
GMR	General Machinery Regulations	
OHSAct	Occupational Health and Safety Act	
ORHVS	Operating Regulations for High voltage Systems	
SSEG	Small Scale Embedded Generator	
SPT	Single Phase Tester	
SPDU	Small Power Distribution Unit	

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2.5 Roles and responsibilities

To ensure full compliance with the Electrical Installation Regulations (EIR), Electrical Machinery Regulations (EMR), and SANS 10142-1 & SANS 10142-2, the following roles and responsibilities are defined for the management of Certificates of Compliance (CoCs) and Inspection and Test Certificates (ITCs) across Eskom Distribution:

- GMR 2(1) Appointees are accountable for establishing and maintaining the capacity, procedures, and governance required to issue and manage CoCs, SPDU Installation Certificates (abridged CoCs), and Meter Change-out Forms. They are also responsible for ensuring that all electrical installations under their jurisdiction meet regulatory and safety standards.
- DX Plant Management is responsible for ensuring that valid CoCs or ITCs are available for all AC/DC boards at substations, including during maintenance and operational handovers.
- DX Control Plant Maintenance (CPM) is responsible for performing ITCs on AC/DC boards. Where CPM staff are not authorised or accredited, a registered Installation Electrician must issue the CoC in accordance with the EIR.
- DX Control Plant Maintenance Management must ensure that DC technicians are adequately trained, assessed, and equipped to perform ITCs in line with this standard.
- Project Execution is responsible for ensuring that a valid CoC or ITC is issued for all new or modified AC/DC panels and boards prior to handover to the Customer Network Centre (CNC) for commercial operation.
- Customer Services assumes the role of "Supplier" as defined in the EIR and is responsible for all
 customer correspondence related to CoC compliance. This includes requesting updated CoCs from
 customers, issuing notifications of supply termination due to non-compliance, and managing safetyrelated interventions.
- Owners or Lessees (ERE) of buildings and facilities are responsible for ensuring that all electrical installations under their control are compliant with the EIR and SANS 10142-1, and that valid CoCs are maintained and updated as required.
- SSEG Installations must be signed off by appropriately registered persons (e.g., DoL-registered electricians and ECSA-registered professionals for the system design, depending on system Voltage, size and configuration). These signoffs form an integral part of the CoC process and must be retained as part of the installation's compliance documentation.

2.6 Process for monitoring

Document number	Document title
240-45920887	Process Control Manual (PCM) for Perform Operational Network Support.

2.7 Related/supporting documents

- Occupational Health and Safety Act No 95 of 1993.
- Electrical Installation Regulations.

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3. Applicability of Electrical Installation Regulations to Substation Auxiliary and Control Circuits

Substations, particularly their low-voltage auxiliary systems, are subject to the Electrical Installation Regulations (EIR) and must be supported by valid Certificates of Compliance (CoCs). While the high-voltage components of substations may fall under the Electrical Machinery Regulations (EMR), the presence of AC/DC distribution boards, lighting, socket outlets, and low-voltage control circuits, such as those feeding trip coils within control rooms brings these systems under the scope of the EIR. These circuits, although part of protection and control systems, are supplied from the auxiliary LV installation and must comply with SANS 10142-1. Therefore, substations are not categorically excluded from the definition of an electrical installation. Compliance with SANS 10142-1 is required for these systems, and CoCs must be issued accordingly. Dedicated telecommunication sites and offices also fall under the EIR and must comply fully with its provisions.

4. Exemptions

4.1 Exemption Summary: Abridged Certificate of Compliance for Electrification Installations

In accordance with the Department of Labour (DoL) exemption granted to Eskom, certain **prepaid electrification installations below 60A** are exempt from the requirement to issue a full Certificate of Compliance (CoC) as defined in the Electrical Installation Regulations (EIR). Instead, an Abridged CoC (also referred to as an Installation Certificate) may be issued under specific conditions.

4.1.1 Scope of the Exemption

- Applies exclusively to Eskom's National Electrification Programme.
- **Limited** to Standard Passive Units (SPUs) and Small Power Distribution Units (SPDUs) (commonly known as "ready boards") for prepaid metering.
- Only installations with a supply size less than 60A qualify.
- Does not apply to conventional house-wired installations, irrespective of supply size.

4.1.2 Conditions of the Exemption

Authorisation Certificate: Each SPU/SPDU must be issued with an Authorisation Certificate from the National Regulator for Compulsory Specifications (NRCS). This certificate must be referenced in the Abridged CoC.

2) Competence of Personnel:

- Installations must be performed by suitably trained persons.
- The immediate supervisor must be a Registered Person (Electrical Tester for Single Phase, Installation Electrician, or Master Installation Electrician).
- 3) <u>Supervisors must exercise general control, including defining work, tools, and methods, and must sample test</u> and <u>observe installations periodically</u> (at least biannually).

4) Testing Requirements:

The following tests must be conducted and recorded on the Abridged CoC:

- Insulation resistance (new installations only)
- Live/neutral reversal check (new installations only)
- Earth loop impedance (<2Ω for 50A pole-top breaker)
- Voltage and polarity test

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Earth leakage trip test

For maintenance replacements, only the voltage/polarity and earth leakage tests are required.

- Visual Inspection: A visual safety inspection must be conducted and documented using a checklist included in the revised Abridged CoC as per ANNEX A. This ensures compliance with SANS 1619 and SANS 10142-1.
- 2) **Customer Responsibility**: After handover, the customer is responsible for periodic testing of the Earth Leakage Unit using the test button.
- 3) **Validity and Renewal**: The exemption was valid until 2 June 2022, after which Eskom is required to apply for renewal.
- 4) **Procurement Requirements**: All new SPDU orders must include the requirement for the revised Abridged CoC to be supplied with each unit, normally supplied by the equipment supplier/OEM.

This exemption enables Eskom to streamline electrification efforts in underserved areas while maintaining safety and regulatory compliance through a structured and auditable process. The Abridged CoC ensures that installations are tested, inspected, and traceable, even when a full CoC is not required.

Note: In the context of the Occupational Health and Safety Act (OHS Act) and the Electrical Installation Regulations (EIR) in South Africa, the phrase "under the general control" refers to a supervisory relationship where a Registered Person (such as an Electrical Tester for Single Phase, Installation Electrician, or Master Installation Electrician) oversees the work of another individual who is not registered but is suitably trained.

5. General CoC Requirement Across Eskom Distribution

In Eskom Distribution, all electrical installations must be supported by a valid Certificate of Compliance (CoC), regardless of the project type. This includes installations undertaken as part of large- or small-scale projects, self-build initiatives, or takeovers of existing supply areas. Where the supply capacity is less than 60A, an abridged CoC may be issued, provided it complies with applicable standards and exemption conditions. The CoC requirement also applies to electric fence systems, as defined under the Electrical Machinery Regulations (EMR), and to Small-Scale Embedded Generation (SSEG) systems, which must comply with NRS 097 and SANS 10142-1, and SANS10142-1-2 once published. For SSEG systems >1kV but ≤22kV a.c. and ≤1.5kV d.c., these must also comply with SANS 10142-2. This ensures consistent safety, legal compliance, and traceability across all installation types within Eskom's operational environment.

5.1 Requirements When Installing the SPDU Unit on <60A Installations

Based on the exemptions granted to Eskom Distribution by the Chief Inspector the following must be adhered to.

5.1.1 In the event that the person conducting the installation and testing is not an accredited person, the person must.

- a) Be suitably trained, assessed competent and authorised to do installation and testing work.
- b) Work under the general control an accredited person when performing such installations.
- c) Conduct all the required tests as per abridged CoC template.
- d) Complete an Installation Certificate (abridged CoC) as per procedure if it is a first-time installation.
- e) Hand over / Email (once electronic means is enabled) to the customer a copy of the abridged CoC.
- f) Complete a Meter Change out form as per procedure if it is an SPDU replacement.
- g) Submit a copy / Email (once electronic means is enabled) to the work coordinator a copy of the abridged CoC.
- h) Work coordinator will attach the abridged CoC to the work order in the CMMS.
- i) Cust Services to get a copy from CMMS

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5.1.2 In the event that the person conducting the installation and testing is an accredited person, the person must.

- a) Conduct the installation, testing and issuing of the Installation Certificate (abridged CoC) with full autonomy and in conformance to the EIR (SANS 10142-1).
- b) Furnish their Certificate of Registration number as an accredited person on the Installation Certificate (abridged CoC).
- c) Complete and submit an Installation Certificate (abridged CoC) as per procedure if it is a first-time installation.
- d) Complete and submit an Electrification Change out form as per procedure if it is an SPDU replacement.

5.1.3 Upgrading <60A SPDU to 60A or Above

In the event that an SPDU installation is upgraded to a **60A supply or higher**, the following requirements must be adhered to:

The customer is accountable to provide a valid CoC for the installation.

Note: The exemption to use abbreviated CoC is not for 60A or higher supplies. Here you need a full CoC issued by a registered person.

- The upgrade can only be done after the CoC was handed to the Eskom official / Eskom contractor.
- Eskom official / Eskom contractor to take a photo of the CoC to be attached to the work order for Eskom records.
- The installation work must be carried out by a qualified and appropriately authorised person:
 - o If performed by an Eskom employee:
 - the individual must be a qualified electrician and
 - authorised for low-voltage work (e.g., Outcome 4).
 - o If performed by a contractor, the work must be executed by:
 - an individual who must be a qualified electrician and
 - be an accredited and registered person as defined in the Electrical Installation Regulations (EIR) e.g. (A Single-Phase Tester for single-phase installations & An Installation Electrician or Master Installation Electrician for three-phase installations.)
 - authorised for low-voltage work (e.g., Outcome 4) in terms of Eskom ORHVS.

5.1.4 Installations with 60A Supply and Above

In the event that an SPDU installation is for a **60A supply or higher**, the following requirements must be adhered to:

• The customer is accountable to provide a valid CoC for the installation.

Note: The exemption to use abbreviated CoC is not for 60A or higher supplies. Here you need a full CoC issued by a registered person.

- The work can only be done after the CoC was handed to the Eskom official / Eskom contractor.
- Eskom official / Eskom contractor to take a photo of the CoC to be attached to the work order for Eskom records.

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• The installation work must be carried out by a qualified and appropriately authorised person:

- If performed by an Eskom employee:
- the individual must be a qualified electrician and
- o authorised for low-voltage work (e.g., Outcome 4).
- o If performed by a contractor, the work must be executed by:
- o an individual who must be a qualified electrician and
- be an accredited and registered person as defined in the Electrical Installation Regulations (EIR) e.g. (A Single-Phase Tester for single-phase installations & An Installation Electrician or Master Installation Electrician for three-phase installations.) and authorised for low-voltage work (e.g., Outcome 4) in terms of Eskom ORHVS.

5.2 Certificate of Compliance Requirements for SSEG Installations

All Small-Scale Embedded Generation (SSEG) systems—whether grid-tied, hybrid, or off-grid, must comply with the Electrical Installation Regulations (EIR) under the OHS Act and be installed in accordance with SANS 10142-1, NRS 097-2 standards, and SANS 10142-2 for systems >1kV but ≤ 22kV a.c. and ≤ 1.5kV d.c. Once SANS 10142-1-2 is published, compliance thereto shall also be mandatory.

The following requirements apply for both single and three phase LV systems (\leq 1kV a.c. and \leq 1.5kV d.c.) as an interim measure in anticipation of the publication of SANS 10142-1-2:

- A valid Certificate of Compliance (CoC) must be issued for every SSEG installation, regardless of Voltage, size or configuration.
- The CoC must be issued by a Registered Person (Installation Electrician or Master Installation Electrician only) as defined in the EIR.
- For grid-tied and hybrid systems, additional compliance with NRS 097-2-1 (interface requirements) and NRS 097-2-3 (inverter specifications) is mandatory.
- The CoC must cover:
 - The AC and DC wiring and relevant AC and DC single line diagrams,
 - Inverter installation and configuration,
 - Earthing and bonding,
 - Protection settings (e.g., anti-islanding),
 - o Compliance with manufacturer requirements of all installed equipment,
 - Reference the inverter NRS097-2-1 compliance certificate commensurate with make and model of inverter/s installed.
 - No provision or concession shall be made for any inverters non-compliant to NRS097-2-1
 - Duly signed off, MV Installation Safety Report for >1kV but ≤ 22kV a.c. & ≤ 1.5kV d.c. installations as required by SANS 10142-2 Annexure B.
 - Compliance to SANS 10142-1-2 once published,
- All grid-tied, or hybrid systems, even if non-exporting, must still be registered with Eskom and comply
 with all safety and technical requirements and standards, using the <u>Eskom SSEG web site</u> as
 guidance. This is only applicable to <u>Eskom direct customers</u>
- For off-grid or islanded system, no Eskom registration is required, however, these systems but comply with all legal requirements as per OHS Act, SANS 10142-1, SANS 10142-2, etc., and Eskom requires a customer declaration for any off-grid generator / islanded system, in the form of a <u>customer</u> declaration letter. This is only applicable to <u>Eskom direct customers</u>.

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• SSEG systems >1kV but ≤ 22kV a.c. and ≤ 1.5kV d.c., the system design requires additional signoff by an <u>ECSA-registered professional</u> (Professional Engineer, -Engineering Technologist, -Engineering Technician, -Certificated Engineer) as dictated by SANS 10142-2, especially where grid impact assessments are needed. Such installations shall also require a signed off Safety Report as directed by SANS 10142-2 par 4.2. and Annexure B.

- The CoC for LV systems ≤ 1kV a.c. and ≤ 1.5kV d.c., must be retained by the owner of the installation and made available for inspection by Eskom or regulatory body upon request.
- The CoC and <u>ECSA-registered professional</u> design sign-off and the signed off Safety Report as per SANS 10142-2 Annexure B for systems >1kV but ≤ 22kV a.c. and ≤ 1.5kV d.c., must be retained by the owner of the installation and made available for inspection by Eskom or regulatory body upon request.
- Once SANS 10142-1-2 is published, its requirements shall supersede the above CoC and <u>ECSA-registered professional</u> design sign-off requirements.

All Small-Scale Embedded Generation (SSEG) systems (whether grid-tied, hybrid, or off-grid) must comply with the Electrical Installation Regulations (EIR) under the OHS Act and be installed in accordance with SANS 10142-1, NRS 097-2 standards, and SANS 10142-2 for systems >1kV but \leq 22kV a.c. and \leq 1.5kV d.c.

Once SANS 10142-1-2 is published, compliance thereto shall also be mandatory."

CoC and Competence Levels (EIR 5.5)

- A valid Certificate of Compliance (CoC) must be issued for every SSEG installation by a Registered Person as defined in the EIR.
- The competence levels under EIR 5.5 determine who may sign off:
 - For Single phase installations ≤1kV a.c. and ≤ 1.5kV d.c. Person registered as an Electrical Tester for Single Phase.
 - Note: Can issue the COC for the AC portion but $\underline{\text{not sign off the design for the DC side}}$ (SSEG).
 - o For Single and Three phase installations ≤1kV a.c. and ≤ 1.5kV d.c. Person registered as an Installation Electrician (Single- and three-phase)
 - For Single and Three phase installations (including complex systems.) ≤1kV a.c. and ≤ 1.5kV
 d.c. Person registered as a Master Installation Electrician.
 - o For Design of systems >1 kV but ≤ 22 kV a.c. and ≤ 1.5 kV d.c. a person who is competent to perform work in accordance with SANS 10142-2 (MV Installations) and registered in a professional category in terms of the Engineering Profession Act 2000 ECSA (Registered Professional Engineer, -Engineering Technologist, Certificated Engineer or -Engineering Technician) is required to sign off the design and grid impact assessments where required.
 - For Installation of systems >1 kV but ≤ 22 kV a.c. and ≤ 1.5 kV d.c. an competent person as defined by regulation 1 of the General Machinery Regulations or a person registered in a professional category in terms of the Engineering Profession Act 2000 ECSA (Registered Professional Engineer, -Engineering Technologist, Certificated Engineer or -Engineering Technician) is required to sign off the MV Installation Safety Report in accordance with SANS 10142-2 requirements.

Interim Measures and Rationale

To mitigate operational risks and in the absence of the anticipated publication of SANS 10142-1-2, Eskom has aligned its approach with current statutory requirements (OHS Act, SANS 10142-1 & 2), the Grid Code, and international best practices. Accordingly, the following interim measures apply to ensure safety and grid integrity:

- Compliance with NRS 097-2-1 (interface requirements) and NRS 097-2-3 (inverter specifications) is mandatory.
- No concessions will be granted for inverters that are non-compliant with NRS 097-2-1.

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5.3 Certificate of Compliance Requirements for Electric Fence Installations

Electric fence systems are classified as electrical machinery under the Electrical Machinery Regulations (EMR) of the OHS Act. As such, they are subject to specific compliance and certification requirements to ensure safety and legal operation.

The following applies:

- A Certificate of Compliance (CoC) is mandatory for all electric fence installations, including new installations and modifications to existing systems.
- The CoC must be issued in accordance with the Electrical Machinery Regulations, specifically referencing Annexure 1 of the EMR.
- The installation must comply with the requirements of SANS 10222-3, which governs the design, erection, and maintenance of electric fences.
- Only a Registered Person (as defined in the EMR) may issue the CoC. This includes:
 - o Installation Electricians or
 - Master Installation Electricians registered with the Department of Employment and Labour.
- The installer must ensure that:
 - The energizer is compliant with SANS 60335-2-76.
 - The fence is clearly marked with warning signs.
 - The system is installed in a manner that prevents accidental contact and complies with separation distances from other services.
- The CoC must be retained by the owner and made available for inspection upon request by an inspector or the supply authority.

5.4 Managing CoC's as users or lessors of electrical installations

As users or lessees of buildings and facilities which constitutes Electrical Installations (I.e. Office buildings, workshops or Service Centres) as anticipated by the EIR, Eskom Distribution must comply fully with the requirements of the Electrical Installation Regulations and possess a valid Certificate of Compliance (CoC) and additional requirements where applicable as per paragraphs 5.1 to 5.3, for every, or part of such an installation.

The following obligations must be observed.

5.4.1 Responsibility for Electrical Installations

Eskom as user or lessee of an electrical installation is responsible for the safety, safe use and maintenance of the electrical installation he uses or leases. This includes the conductors connecting the installation to the Point of Supply. (EIR 2)

5.4.2 Certificate of Compliance

Eskom as user or lessee of an electrical installation shall have a valid CoC and additional requirements where applicable as per paragraphs 5.1 to 5.3, issued by an accredited person in respect of every such installation or part of an installation that have been altered. (EIR 3) and (EIR 7)

5.4.3 Construction

Eskom shall not permit or require the installation of an electrical installation other than in accordance with the safety standard incorporated into these regulations under section 44 of the Ohsact.

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5.4.4 Notification to supplier of impending installation work

Any person that wishes to construct an electrical installation or, increase the electrical supply capacity is obliged to notify the designated supplier of his/her intention, in writing, using the form contained in Annex 3 of the EIR. It is provided that Eskom Distribution may wave this requirement in respect of such work specified in EIR 6(1) & (2).

5.4.5 Eskom obligation to demand a CoC

Further, that "No supplier shall connect or give permission for the connection of an electrical supply unless a CoC and additional requirements where applicable as per paragraphs 5.1 to 5.3, for the installation have been produced to the supplier by the user of such electrical installation", (EIR 7(2))".

At the commissioning of the installation prior to it being connected to the system and energised. The customer will be requested to hand the CoC and additional requirements where applicable as per paragraphs 5.1 to 5.3, for the installation to the Eskom representative (TO, STO or PTO) who will ensure the following.

- a) That the CoC and additional requirements where applicable, are valid for the particular installation.
- b) That the CoC's and additional requirements where applicable, date / time reference are valid.
- c) That the CoC and additional requirements where applicable, are issued by a known and registered contractor. If not the contractor accreditation could be investigated.
- d) That the CoC and additional requirements where applicable, are complete. I.e. signatures, installation description, test results and exclusions.
- e) The CoC and additional requirements where applicable, will be handed back to the user or lesser of the installation, it is not the accountability of Eskom to retain any form or copy of the CoC for customer installations.

5.4.6 Conditions under which a CoC must be demanded

- a) Prior to connecting a supply to a new Electrical Installation, Eskom must be furnished with a valid CoC and additional requirements where applicable as per paragraphs 5.1 to 5.3 above.
- b) When there is a change in ownership of the electrical installation. Application for a new supply or termination of an existing supply will be deemed notification of change of ownership. The new user or lessee must provide the CoC and additional requirements where applicable as per paragraphs 5.1 to 5.3 above prior to re-connecting the supply.
- c) Eskom will acknowledge the right that the CoC and additional requirements where applicable as per paragraphs 5.1 to 5.3, is transferable between consecutive owners. (EIR 3(1)). The same procedure as in paragraph 5.4.5 above will apply.
- d) When there is electrical contact incident investigation.

5.4.7 Eskom right (no obligation) to inspect an electrical installation

"A supplier may at any reasonable time inspect or test any installation, provided that the supplier shall not charge any fee for such inspection unless the inspection is carried out at the request of the user or lesser."

5.5 Eskom has an obligation to respond to substandard or dangerous electrical installation once identified

a) Should an Eskom Employee identify a defect or fault in an electrical installation that does not hold imminent danger to life or property, then Eskom may request the user or lessee in writing via Customer Services to obtain and present Eskom with a new CoC and additional requirements where applicable. (EIR 7(7)).

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b) Should a Eskom Employee identify a defect or fault in an electrical installation that constitute an immediate danger to life or property, Eskom shall take steps to have the supply to the circuit in which the fault or defect was detected disconnected. (EIR 7(7) & 9(3)) This shall be confirmed in writing by Customer Services.

5.6 Eskom has an obligation to report negligence on the part of accredited persons.

Should an Eskom employee take note of negligence on the part of an accredited or registered person, Eskom is obliged to report in writing such negligence to the Chief Inspector. (EIR 7(7))

5.7 Responsibility for Electrical installation

5.7.1 Where there is a clear separation between the points of supply and control

In "so called" conventional installations where Eskom provide a meter box containing the meters and a distinct point of supply (supply terminals) to which the customer supply cable, feeding a separate box containing the point of control, is connected the following shall apply.

The user or lessor of an electrical installation shall be responsible for the safety, safe use and maintenance of the installation including the cable connected between the point of supply and the point of control.

5.7.2 Where the point of supply is also the point of Control

In "so called" electrification installations where the point of control (Earth leakage) and the point of supply are contained in one unit- as is the case for SPDUs, Eskom will assume the responsibility for the safe use and maintenance of that unit. The customer is responsible for the safe use thereof and is instructed to that effect on installation according to Eskom procedure (240-130892449 [3]).

5.8 Responsibility for the suppliers equipment

- a) Electrical equipment on customers premises that is not part of the electrical installation as defined under 2.3.1 General Definitions above, does not require Certificates of Compliance.
- b) The electrical equipment on customer premises that is not part of the electrical installation as defined under 2.3.1 General Definitions above, governed by the Wiring Code of Practice (SANS 10142-1 / SANS 10142-2) must comply with the provisions of the code.

6. Forms, Records and Certificates

The manufacturer testing certificate and user's manual (including the technical specification) shall be included in the package. An example of a certificate is given in annex A.

7. Authorization

This document has been seen and accepted by:

Name and surname	Designation
Alex Ndlela	Senior Manager Power Delivery (DX SCOT CHAIR)
Aumkar Sukhoo	Senior Manager Maintenance Centre of Excellence.
Monde Soni	SCOT/SC Chairperson (DER/SSEG)
Devan Nardhamuni	SCOT/SC Chairperson (Maintenance & Operating)

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8. Revisions

This revision (DST_240-170000465) cancels and replaces all revisions of document number 34-962.

Date	Rev	Compiler	Remarks
Oct 2025	3	Deon Boshoff / Philip Groenewald	The Introduction (par 1), Scope (par 2.1), Roles and Responsibilities (par 2.5), and several other paragraphs updated to current requirements pertaining to OSH Act, EIR EMR, SSEG amongst others.
			Updated abbreviations.
			Added Normative References pertaining to SSEG and electric fence installations, inclusive of SANS 10142-2 [11]
			Extensive changes wrt Exemptions (par 4)
			Added CoC and additional requirements for SSEG Installations (par 5.2)
			Added CoC requirements for Electric Fence Installations (par 5.3)
			Added requirements to par 5.4 and 5.5 in addition of CoC, where applicable for SSEG systems and electric fence installations.
Feb 2022	2	DM Ntombela	Changed the date on the front page of this document, reviewed normative references.
			Energy Control Unit (ECU) and Electricity Dispenser (ED) have been removed because they OLD technologies
			Splitting the ECU and the SPU
			If any alterations are done to the ECU / SPDU which is supplied as a unit, such as splitting the SPDU by installing the common base outside and the socket outlets inside a house, a full CoC must be issued by an Accredited person in full compliance of the EIR (SANS 10142-1). In this case the exemption by the Chief Inspector is not applicable.
			The person must complete and submit an ECU Installation Certificate (abridged CoC) if it is a first time installation or an Electrification Change out form as per procedure if it is an ECU replacement
Feb 2012	1	KC Layley	5 Year review – No content change
Dec 2007	0	AJ Kraft	Update template, reference numbers to comply with new TESCOD and Eskom Documentation work practices (Introduction Bibliography)
			Removed first sentence.
			Removed reference to DISPVACS6
			Document number changed to DST 34-962
May 2004	0	AJ Kraft	Original issued – DISASADJ7

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9. Development team

The following people were involved in the original development of this document and subsequent revision:

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Charles Makwe	Officer Technical Support	MEW
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10. Acknowledgements

The original chairperson and the GMWP care group wishes to acknowledge the former team members below for their contribution in the development of the superseded documents:

Name	Name
AJK Kraftt	Sheryll Isaacs
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Anthony Abrosie	Phil Crowdy
Johan Beukes	

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Annex A – Installation Certificate INSTALLATION CERTIFICATE

SECTION A (To be completed by SPU supplier)						
I, On behalf of (SPU Supplier),						
hereby declare that the Standard Passive Unit Number (SPU) is in						
accordance with Eskom Standard 240-75659896, Au	uthorisation Certificate n	umber (NRCS No.)				
Signature Da	te					
SECTION B (to be completed by Registered Pers	on <u>)</u>					
This certificate is only for use where Authorised Spli are installed. I	, on behalf of Eskom ha A Split Prepayment Mete	ve installed the Split er, Registration Number				
Stand No: Stree	et:					
Township:						
Earth Leakage Trip Value: mA	Polarity Test: Correct or	Corrected				
Tests as per Eskom standard 240-75655380 "LOW VOLTAGE SERVICES SECTION 1: ELECTRIFICATION"						
Test	Test Instrument used	Result				
1. Insulation test on service cable M Ω - (only for new installation)						
Supply side Live/Neutral connection		Y/N				
reversed – (only for new installation)						
3. Earth loop impedance test $< 2\Omega$ for 50A						
 pole top breaker - (only for new installation) Voltage level and Polarity test – (for new 						
and replacement of existing installation)						
5. Earth leakage trip test mA – (for new and						
replacement of existing installation)						
Visual Inspection – Indicate either "Y" or "N" in the last column provided						
Compliance with SANS 1619						
1 Is the SDPU provided with sealed knockout holes?						
2 Confirm if the incoming cable is correctly terminated in the SPDU and is fully installed?						
3 Is there any visible risk of electric shock from the SDPU?						
4 Are the mounting screw holes clearly visible						
Does the SDPU have labels for Earth leakage unit, isolator, danger notice, manufacturer details and electrical shock hazard sign?						
Compliance with SANS 10142-1						

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1	Are the disconnecting devices correctly located and switchgear switches the phase and the neutral conductor?	
2	Are all the accessible components of the installation correctly selected and installed?	
3	Is the SDPU mounted away from the direct application of heat and other corrosive	
	hazards?	
4	Is the maximum power limit correct for the power supply?	
5	Is the SDPU mounted at a suitably accessible height between 1,2m and below 2,2m?	
6	Are the connections of the bonding, earthing and conductors mechanically secure?	
7	Are all the components of the SPDU intact after wiring of the incoming feeder cable?	
8	Has the active unit been mounted, sealed, and initialized as required by Eskom sealing	
	standard <u>240-76628631</u> ?	
9	Did the supply connection pass the earth loop impedance test?	
Installer Name :, Signature		
Registration Number (Applicable to contractors)		
CUSTOMER		
Test the Earth Leakage (Main Switch) regularly by depressing the test button. If the switch does not		
trip when the test button is pressed, then report the Earth Leakage failure to your nearest Eskom		
office or via the fault reporting platforms such as Alfred - Chatbot .		
omos of the the least reporting platforms adoir do him of the order		