Eskom		**Specification**

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1. Introduction

This document was developed to standardise the vehicle safety specifications across the organisation to comply with legislative and Eskom requirements. The minimum vehicle safety specifications stipulate the related requirements that shall be adhered to meet Eskom's internal procedural requirements as well as legislative requirements.

If this document does not include the specifications of certain vehicles or equipment used with vehicles, the division or unit shall ensure compliance with all safety specifications according to the applicable standard, regulations, code of practice, or legislation for that specific vehicle and/or mobile equipment.

2. Supporting clauses

This document applies throughout Eskom Holdings SOC Limited, its divisions, subsidiaries and any entity in which Eskom has a controlling interest, for example, contractors employed to transport Eskom employees.

It incorporates Eskom's specifications, the specifications of the National Road Traffic Act and the Construction Regulations, as incorporated in the Occupational Health and Safety Act 85 of 1993.

The specifications in this document provide the organisation with an understanding of the vehicle-related specifications that must be adhered to meet Eskom's internal procedural requirements as well as legal requirements. This document may not cover the specific divisional specifications of the vehicle or the equipment used with the vehicle. In that case, the division shall ensure compliance with all safety specifications under the applicable standard, regulations, or code of practice for that specific vehicle and/or equipment.

2.1.1 Purpose

The purpose of the document is to standardise Eskom's vehicle safety specifications by stipulating the basic vehicle-related specifications for Eskom and contractors carrying out work for, or on behalf of, Eskom.

This document specifies the basic specifications that shall apply to all Eskom vehicles and to vehicles used to perform Eskom activities (when contracted out to third-party service providers) and includes contractors/subcontractors that are responsible for the transportation of Eskom employees and contractor employees.

The divisions may determine supplementary specifications to suit their needs or work requirements, provided that such changes comply with the original equipment manufacturer's specifications, as well as the applicable legislation, and do not expose an Eskom employee, contractor, or member of the public (when contracted out to third-party service providers) to risk or any vehicle to damage because of a substandard vehicle safety specification.

2.1.2 Applicability

This specification applies to vehicles and equipment throughout Eskom Holdings SOC Limited, its divisions and subsidiaries, scheme vehicles, or any vehicle that will be utilised for Eskom's business purposes.

Only newly purchased vehicles and new contracts need to comply with this specification. The vehicles currently in the business will follow a phased approach to replace old vehicles in accordance with the Fleet Services Department's replacement plan, except if otherwise decided by the business. Scheme and non-Eskom vehicles must comply when replacing the specific vehicle.

2.1.3 Effective date

This document is effective three months after the authorisation date.

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] National Road Traffic Act 93 of 1996
[2] Occupational Health and Safety Act 85 of 1993
[3] Mine Health and Safety Act 29 of 1996
[4] 240-62582234 – OHS Roles and Responsibilities and Statutory Appointments
[5] 240-62946386 – Eskom Vehicle and Driver Safety Management Procedure
[6] 32-109 – Corporate Identity Policy
[7] Fleet Section Technical Specifications for various vehicles related to vehicle safety

2.2.2 Informative

[1] AARTO – Administrative Adjudication of Road Traffic Offences Act 46 of 1998
[2] National Environmental Management Act 107 of 1998
[3] 32-129 – Managing Eskom Business Vehicle Scheme
[4] 32-136 – Contractor Health and Safety Requirements
[5] SANS 1055 – Rear Under-run Protective Devices
[6] SANS 1563 – The Strength of Large Passenger Vehicle Superstructures (Rollover Protection)
[7] SANS 9001 Quality Management Systems
[8] SANS 39001 Road Traffic Safety (RTS) Management Systems
[9] SANS 45001/OHSAS 18001

2.3 Definitions

Definition	Explanation
Abnormal vehicle	Any dimension that exceeds a height of 4.1 metres, a width of 2.5 metres, and a length of 22 metres.
Anti-spray mud flaps	Mud flaps that reduce the mist spray behind the wheels.
Bus	A vehicle that transports more than, or equal to, 35 passengers.
Construction vehicle	Any vehicle that is used as a means of conveyance for transporting persons or material, or persons and material, on and off the construction site to perform construction work.
Construction works	Any work in connection with a) the construction, erection, alteration, renovation, repair, demolition, dismantling of, or addition to a building or any similar structure; or b) the construction, erection, maintenance, demolition, or dismantling of any bridge, dam, canal, road, railway, runway, sewer, or water reticulation system; or the moving of earth, clearing of land, making an excavation, piling, or any similar civil engineering structure or type of work. *Notes: "Construction work" in the Construction Regulations in the Occupational Health and Safety Act is limited to building works and civil engineering works and must be read with the definition of "structure".*
Daytime running lights	These are the lights located on the front of a vehicle, which remain on whenever the engine is running. Unlike headlights, daytime running lights are fairly dim and do not illuminate the road ahead. The purpose of daytime running lights is to increase the visibility of your vehicle so that other drivers can see you on the road.
Division	A division of the Eskom Business is the business sector (segment) that is one of the parts into which the organisation is divided. The divisions are distinct parts of that business. Each division is a separate entity inside the primary business. Each division operates under a separate name and operates with the support of its subsections, such as OUs/BUs or grids.
Driver camera	A video event recorder that monitors the response of a driver behind the steering wheel and captures such driving behaviour. It captures driving behaviour only on a triggered/manual event (rapid action of the driver) and provides real-time feedback on risky driving.

Eskom employee	Any person who has entered into, or works under, a contract of service, apprenticeship, or learnership with an employer, whether the contract is explicit or implicit, oral or in writing, whether the remuneration is calculated by time or work is done and is paid for in cash or in kind or tacitly (by tacit agreement), and includes a case where such a person is under the control, instruction, and supervision of his/her employer, namely, the following: a) Permanent employee, which includes the following: • A full-time employee; • A person referred to as a learner (section 18.1) or an apprentice in the Conditions of Service for Bargaining Unit Employees. b) Non-permanent employee, which includes the following: • A person placed through a TES (includes a labour broker/personnel agency); • A temporary employee; • Third-party contractors; • A person under a learnership contract (section 18.2). c) A bursary holder while under the supervision and/or direction of an employer. Note 1: an employee only has one employer at any time. The employer is the person with whom he/she has a contractual relationship of employment, even when he/she performs his/her contractual obligations for another person. Note 2: a pensioner is excluded because he/she is not regarded as an employee, as the employee-employer relationship no longer exists.
Eskom-owned vehicle	Any vehicle purchased or rented by Eskom, excluding scheme vehicles, or any vehicle that an Eskom employee makes available for business purposes and that is insured directly or indirectly by Eskom.

Heavy vehicle	A vehicle with a gross vehicle mass of more than 3 500 kg. "Heavy axle" means an axle whose wheels are fitted with tyres of a size (bead seat diameter) greater than 406.4 millimetres (16 inches), or an axle with more than two wheels irrespective of tyre size, but excluding any axle of a motorcycle, a motor tricycle, or a motor car. "Axle" means a device or set of devices, whether continuous across the width of the vehicle or not, around which the wheels of the vehicle rotate and which is so placed that, when the vehicle is travelling straight ahead, the vertical centrelines of such wheels are in one vertical plane at right angles to the longitudinal centreline of such vehicle. Axle shall also include an axle that is lifted and whose wheels are not in contact with the road surface. "Heavy vehicle" means a motor vehicle with at least one heavy axle and/or any vehicle that is principally designed or adapted for the conveyance of persons exceeding 16 in number.
Light delivery vehicle	A motor vehicle designed or adapted for the conveyance of persons and freight with no heavy axle.
Management of change	The Corporate OHS Manager shall approve the applicability and suitability (mechanical, electrical) of any changes or modifications to vehicles that affect the vehicle safety rating.
Midi-bus	A vehicle that transports more than 16, but fewer than 35, passengers.
Minibus	A vehicle that transports up to 16 passengers.
Passenger vehicle	A vehicle used for transporting passengers, for example, a sedan, minibus, midi-bus or bus, or a sedan, including an LDV and a truck (HCV) when these are used for carrying passengers.
Responsible manager	A manager of a department, section, or operating/business unit, who has been appointed as part of the Eskom delegation of authority process, to assist the applicable section 16(2)-assigned person in performing his/her duties in terms of the Occupational Health and Safety Act.
Trailer	A vehicle that is not self-propelled and that is designed or adapted to be drawn by a motor vehicle.
Vehicle	Any vehicle propelled by petrol, diesel, or an electric energy source, used for performing work and/or for transporting people for Eskom's business, including scheme vehicles, or any vehicle that an Eskom employee makes available for business purposes and that is insured directly or indirectly by Eskom.

Under-run protection devices	Side under-run protection devices or “lateral protection devices” occupy larger spaces between axles on a rigid truck or a semitrailer. They are barriers or plates that sit in the space between axles. They are designed for the following purposes: Stop other road users, such as other vehicles, cyclists, and pedestrians, from getting under the rear wheels of a truck or trailer. Minimise the potential damage a roadside obstacle might cause if the truck turns in too early.
Vehicle type	The type of vehicle refers to a sedan, LDV, truck, construction equipment/vehicle, or mobile lifting equipment, etc. Class 1 – Light vehicles mean motor vehicles, other than heavy vehicles as defined below, with or without a trailer, and include motorcycles, motor tricycles, and motor cars. Class 2 – Medium-heavy vehicles mean heavy vehicles, as defined below, with two axles. Class 3 – Large heavy vehicles mean heavy vehicles, as defined below, with three or four axles.
Vehicle-monitoring device (VMD)	A vehicle-monitoring device that monitors the speed, distance, location, etc., of a vehicle as well as certain driver actions.

2.4 Abbreviations

Abbreviation	Explanation
ABS	antilock braking system
BU	business unit
A&F	Assurance and Forensic Department
EDC	Eskom Documentation Centre
HCV	heavy commercial vehicle
HR	human resources
HRA	health risk assessment
km/h	kilometres per hour
LED	light-emitting diode
LDV	light delivery vehicle
NCAP	New Car Assessment Programme
NRTA	National Road Traffic Act
OEM	original equipment manufacturer
OU	operating unit
SANS	South African National Standards
SHE	safety, health and environment
VMD	vehicle-monitoring device

2.5 Roles and responsibilities

The delegated employer, in terms of section 16(2) of the OHS Act, together with the appointed responsible managers in accordance with the OHS roles and responsibilities and statutory standard (240-62582234), shall be responsible for ensuring compliance with this specification in their designated area of responsibility.

2.6 Process for monitoring

- Compliance with the specifications and requirements of this specification document shall be audited by the operating unit/business unit (OU/BU) at least annually as part of an internal audit/review process.
- Sustainability Systems OHS may from time to time perform a compliance inspection.
- All records shall be audited by the Assurance and Forensic Department (A&F) or any person delegated by A&F to carry out the audit and at a frequency determined by A&F.

2.7 Related/Supporting documents

Vehicle inspection sheets for the relevant vehicles.

3. Vehicle safety specifications

3.1 Standard minimum specifications

The standard minimum specifications apply to all Eskom-owned vehicles and vehicles used when performing work for Eskom Holdings SOC Limited and its subsidiaries, including contractors (subsidised transport, contractors, consultants, and any person insured directly or indirectly by Eskom, driving a vehicle inside or beyond the borders of South Africa).

Where the type of vehicle with the required safety features is available, that is the vehicle that shall be used for Eskom business purposes and shall meet the following requirements:

i. All vehicles that are tested for NCAP in South Africa/Europe will comply with the Euro NCAP 4 rating.

ii. Factory-fitted antilock braking system (ABS).

iii. Factory-fitted driver and passenger airbags.

iv. Alarm/immobiliser – factory-fitted. Factory-fitted power steering.

v. Tyres in conformity with the manufacturer’s specifications for the intended work application. Managers have to consult the Eskom Fleet Services for advice, where needed, for special circumstances.

vi. Two emergency warning triangles (in all vehicles).

vii. Factory-fitted air conditioner

viii. Factory-fitted seatbelt reminder.

ix. Daytime running lights for all vehicles travelling on open roads. (When the ignition is in the “on” position, lights should switch on automatically.) Vehicles not fitted with daytime lights must use the dipped lights (also called driving lights) in the “on” position for daylight driving (all vehicles).

x. Reverse-park distance control sensor for all Eskom-owned vehicles.

xi. Reverse beeper shall be standard on all heavy commercial vehicles, buses, and construction equipment, or vehicles being used on construction sites.

xii. All Eskom-owned vehicles must carry a label containing the wording “Emergency number (applicable contact number)”, affixed to a conspicuous area on the rear right-hand side of the vehicle. The contact number(s) on the label must be the all-hours number(s) of the OU/BU. The labelling must be in compliance with the corporate identity requirements.

xiii. Vehicle-monitoring devices (VMDs) have to be fitted in all Eskom-owned vehicles (including company vehicles).

xiv. A driver behaviour camera must be fitted in all Eskom-owned vehicles (including company vehicles).

Note:

- Hired or leased vehicles will comply with the Treasury Note for a B-class vehicle fitted with airbags and an ABS braking system.
- All private vehicles used must adhere to the Eskom Vehicle Safety Specification 32-345. The private vehicle must have at least two factory-fitted airbags and a factory-fitted ABS.

3.2 Light delivery vehicles (LDVs) safety specifications – medium commercial vehicles < 3 500 kg

i. LDVs shall meet the minimum specification mentioned in 3.1 above.

ii. Where a risk assessment indicates that there is a risk of rollover, such as travel on an excessive gravel road, those LDVs shall be fitted with a roll bar suitable for cab protection in compliance with the Fleet Services Technical Specification.

iii. Where other LDVs are used for Eskom business purposes, it is proposed that a risk assessment be conducted to establish what type of roll bar is required to provide adequate cab protection in case of an accident.

3.3 Heavy commercial vehicles specification – gross vehicle mass (GVM) above 3 500 kg and above (including heavy commercial vehicles with GVM above 16 000 kg, and abnormal vehicles)

All heavy commercial vehicles shall comply with the provisions of the National Road Traffic Act, as amended, and shall meet the following basic specifications in addition to the standard minimum specifications mentioned in 3.1 above:

i. Factory-fitted ABS where applicable in the market.
ii. Factory-fitted driver and passenger airbags were available in the market.
iii. Alarm/immobiliser – factory-fitted if available in the market.
iv. Factory-fitted power steering if available in the market.
v. Reverse lights.
vi. Yellow reflective tape that must be fitted in compliance with the National Road Traffic Act specification.
vii. Anti-spray mud flaps.
viii. Under-run protection device in compliance with the SANS 1055 standards.
ix. Chevron warning plates in compliance with the National Road Traffic Act specification.
x. A speed limit warning sign in compliance with the National Road Traffic Act specification.
xi. Any other apparatus (including large tool-boxes) shall be fitted in such a manner that it would be sufficiently secured in the event of vehicle rollover or collision and would not create a risk by weakening the structure of the vehicle.
xii. Applicable warning signs for the type of transportation should be fitted in compliance with legislation.

Note: Crew cabs may not be fitted.

3.4 Minibus safety specifications

In addition to the standard minimum specifications and in compliance with the provisions of the National Road Traffic Act, as amended, all minibuses shall meet the following basic specifications:

i. SANS-approved three-point safety belts for every seat.
ii. No fold-up or jockey seats.
iii. A speed warning sign shall be displayed on the back of the minibus in accordance with the National Road Traffic Act.
iv. Yellow reflective tape shall be fitted in compliance with the National Road Traffic Act requirement.
v. The driver's seat shall be adjustable and partitioned in compliance with the National Road Traffic Act specification.
vi. The tyres shall comply with the manufacturer's specification for commercial use. Tyres of two different makes or models may not be fitted on the front axle. The front tyres should always be the same.
vii. The minibus shall have at least one emergency exit for every 12 passengers.

viii. Panel vans or vehicles designed for goods delivery may not be converted into a minibus.
ix. A sign should be affixed to the vehicle to indicate that the bus is equipped to transport people with disability.

3.5 Midi-bus and bus safety specifications

In addition to the standard minimum specifications and in compliance with the provisions of the Road Traffic Act, as amended, all midi-buses and buses shall meet the following basic specifications:

i. SANS-approved safety belts for every seat.
ii. No fold-up or jockey seats.
iii. A speed warning sign shall be displayed on the back of every midi-bus/bus.
iv. Yellow reflective tape shall be fitted in compliance with the National Road Traffic Act specification.
v. The driver's seat shall be adjustable. The driver's compartment shall be partitioned in compliance with the National Road Traffic Act specification.
vi. The tyres shall comply with the manufacturer's specification. Tyres of two different makes or models may not be fitted on the front axle. The front tyres should always be the same.
vii. The midi-bus/bus shall have at least two identified emergency exits for every 12 passengers.
viii. Steps shall have anti-slip treads.
ix. A panel van or vehicle designed for goods delivery may not be converted into a midi-bus.
x. Identified buses and midi-buses transporting employees with disabilities should be wheelchair-friendly to accommodate a wheelchair entering the vehicle. A sign should be affixed to the vehicle to indicate that the bus is equipped to transport people with disabilities only if the vehicle has been designed to transport disabled people.

3.6 Trailer and caravan safety specifications

i. All Eskom-owned rented and hired trailers and caravans shall meet the National Road Traffic Act specifications.

ii. The trailer risk assessment and inspection will guide the process of ensuring compliance with the specification.

3.7 Construction vehicles

3.7.1 Minimum safety specifications

All construction vehicles and equipment shall meet the legislative requirements of the OHS Act Construction Regulation 23, NRTA, the Mine Health and Safety Act, and the National Environmental Management Act.

i. Where appropriate, a construction vehicle must be fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle overturn;
ii. It should be of an acceptable design and construction;
iii. It must have safe and suitable means of access and egress;
iv. It should be provided with adequate signalling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, to ensure their continued safe operation;
v. It should be equipped with an acoustic warning device which can be activated by the operator;
vi. It should be equipped with an automatic acoustic reversing alarm; and
vii. It should be equipped with telescoping whips with triangle flags for vehicles that travel on mining sites and/or construction sites.

3.7.2 Specialised vehicle categories

Golf carts, quad bikes, self-balancing scooters, etc. must comply with the applicable OEM standard and Eskom's Fleet Safety specifications.

3.8 Other specifications

3.8.1 The following must be retrofitted in vehicles, where applicable:

Where necessary, lights must be fitted at an elevated height on LDVs, minibuses, midi-buses, buses, tractors, and all vehicles fitted with canopies to ensure effective warning capabilities.

3.8.2 Modifications on vehicles

a) Changes or modifications to any Eskom-owned vehicles must be managed in compliance with the Fleet Management Policy and should be certified safe by the manufacturer, in compliance with the relevant specifications. The Fleet section shall approve any items added to the vehicle.

b) These must be supplied and installed by the dealer or at approved fitment centres.

4. Acceptance

This document has been seen and accepted by:

Name	Designation
National Vehicle Safety Workgroup	
Occupational Health and Safety Steering Committee	
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5. Revisions

Date	Rev.	Compiler	Remarks
May 2010	1	PR Raophala	Revision of an existing document.
May 2013	2	TJ Mabeleng	Revision of an existing document to align it with amended legislative and Eskom specifications.
Dec 2014	3	OC Swanepoel	Revision of an existing document to align it with amended legislative and Eskom specifications.
Sep 2015	4	OC Swanepoel	Revision of an existing document to align it with amended legislative and Eskom specifications in line with the Business Productive Process (BPP).
Nov 2020	5	OC Swanepoel	Revision of an existing document to align it with amended legislative, Eskom specifications in line with the BPP, and as guided by the risks identified during the incident investigation and changes in technology.

6. Development team

The following people were involved in the revision of this document:

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7. Acknowledgements

The contributions to this document by several people are much appreciated.

Miranda Moahlodi (Senior Manager, Sustainability Systems, OHS) as the owner.