Eskom	Technical specification	Camden Power Station

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1. Introduction

Camden Power Station is planning a Half-Station Shutdown (HSSD) of the West-side units to facilitate the inspection, refurbishment and maintenance of the Main Cooling Water (CW) System. A primary objective of the shutdown is the refurbishment and/or replacement of critical piping sections that are normally inaccessible while the units are in operation. As the cooling water system is common to all four West-side units, maintenance on certain components cannot be safely or practically performed without implementing an HSSD.

This document serves as the technical reference for the procurement of metallic piping components for the Camden West side HSSD.

Camden Power Station initially attempted to procure all spares required for the West-side HSSD as a single turnkey project. This approach was intended to ensure proper integration of the various components and interfaces, while also simplifying coordination and interaction between the client and supplier.

However, the proposed turnkey procurement approach was not accepted through the sole source steercom process. Consequently, the original turnkey scope had to be divided into several smaller procurement categories and transactions. The station must now pursue multiple procurement processes to obtain the various spares and equipment required for execution of the West-side HSSD.

This change in procurement strategy has a significant impact on the planning and readiness of the West-side HSSD. The additional procurement interfaces and transactions introduce increased schedule risk and may affect the availability of the required spares and equipment prior to the planned outage.

Based on the current procurement status, Camden Power Station will not be ready to execute the West-side HSSD in December 2026, as currently reflected in the outage listing schedule. The planned HSSD start date will therefore need to be reviewed and revised to allow sufficient time for the procurement, manufacture, refurbishment and delivery of all required equipment and spares.

2. Supporting Clauses

2.1 Scope

This document defines the technical specifications for the **metallic piping components** that will be installed during Camden's West HSSD.

2.1.1 Purpose

The purpose of this document is to define the technical specifications for metallic piping component spares that will be utilised during the Camden West side HSSD.

2.1.2 Applicability

This document shall apply specifically to Eskom Camden Power Station for the 2027 West side Half Station Shut Down.

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2.2 Normative/Informative References

All parties using this document shall apply the latest approved editions of the documents referenced in the paragraphs below. Should any of the referenced documents be revised after the issuance of this scope of work, any new or updated requirements introduced by such revisions shall be complied with.

2.2.1 Normative

[1]	ISO 9001 Quality Management Systems
[2]	EN 10204 Metallic Products - Type of Inspection Documents
[3]	OHSACT Occupational Health and Safety Act of 1993

Eskom Specifications

[4]	240-105658000 - Supplier Contract Quality Management Specification (QM-58)
[5]	240-123801640 - Standard for Low Pressure Pipelines

Drawing and Documentation Standards

[6]	240-76992014 - Project / Plant Specific Technical Documents and Records Management Work Instruction
[7]	240-65459834 - Project Documentation Deliverable Requirement Specification
[8]	240-54179170 - Technical Documentation Classification and Designation Standard
[9]	240-66920003 - Documentation Management Review and Handover Procedure for Gx Coal Projects
[10]	240-86973501 - Engineering drawing Standard

2.3 Definitions

Definition	Description
Contractor	The organisation or individual appointed by Eskom or the Supplier to perform the specified works, services, installation, refurbishment, fabrication, modification, inspection, testing, transport, or commissioning activities required under this Scope of Work.
Cooling Water	Medium, which is conveyed in the pipes.

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Definition	Description
Cooling water duct	Main cooling water pipework, also referred to as cooling water duct, that transports cooling water from the cooling water pumps to the condensers and eventually back to the cooling towers/
Small Bore	When referenced in this document, small bore refers to a nominal size less than 1000mm.
Manufacturer	The original equipment manufacturer (OEM), fabricator, or production facility responsible for the manufacture, assembly, coating, machining, or refurbishment of the final product or component supplied under this Scope of Work.
Pipework	Pipes and fittings are used for the conveyance of steam, water, gases or other fluids.
Quality Control Plan (QCP)	A document specifying the activities to be inspected throughout the execution of the project, inclusive of test methods, procedures and acceptance criteria. (This term is equivalent to QIP and ITP)
Supplier	The company, manufacturer, contractor, service provider, or authorised representative responsible for the supply, refurbishment, manufacture, testing, inspection, documentation, and delivery of the equipment, materials, or services specified in this Scope of Work.
Piping Component	Any manufactured component intended for incorporation into a piping system for the conveyance, isolation, connection, support, or control of a fluid. This includes, but is not limited to, pipes, fittings, flanges, reducers, elbows, tees, branches, couplings, unions, caps, plugs, and other pressure-containing or pressure-retaining piping items specified in the SOW.

2.4 Abbreviations

Abbreviation	Description
CW	Cooling Water / (Circulating Water)
HSSD	Half Station Shut Down
MCW	Main Cooling Water
NB	Nominal Bore
NCR	Non-conformance Report
NDT	Non-destructive Testing
OD	Outside Diameter
PCD	Pitch Circle Diameter
QCP	Quality Control Plan
TBC	To Be Communicated

2.5 Roles and Responsibilities

Eskom: Responsible for developing the Scope of Work (SOW) and the technical specifications for the works.

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Supplier:

a) **Review and understanding of Scope of Work**
The Supplier shall be responsible for reviewing and verifying the accuracy and completeness of Eskom's specifications, ensuring full alignment with Eskom's internal standards as well as all applicable international standards. The Supplier shall further ensure full compliance with all specified deliverables and performance requirements.

b) **Technical description of stock items (Appendix A)**
The Supplier shall obtain and confirm the full technical descriptions of all stock items listed in **Appendix A**. This scope references Camden stock numbers associated with items to be procured or refurbished. The Supplier shall be responsible for supplying all items strictly in accordance with the applicable SAP stock descriptions and associated technical requirements.

c) **Schedule and lead time commitment**
The Supplier shall submit a detailed delivery schedule to Eskom indicating the planned delivery dates for all spares listed in Appendix A of this document. Any deviation from the approved delivery schedule shall be formally communicated to Eskom through early warning notifications issued by the Supplier without delay.

3. Camden West Half-Station Shut Down – Required Spares

3.1 Metallic Piping Component Spares

3.1.1 General Requirements

3.1.1.1 As part of the Camden West Half-Station Shutdown (HSSD), several piping sections will be replaced with new. The Supplier is responsible for the supply of the replacement piping components.

3.1.1.2 All piping components shall be supplied with EN 10204 Type 3.1 inspection certificates in English. The certification shall be fully traceable to the specific heat numbers permanently marked or otherwise identifiable on the individual piping components supplied.

Any piping component supplied without the required EN 10204 Type 3.1 certification, without traceability to the corresponding heat number, or with certification issued in a language other than English shall be rejected.

3.1.1.3 The full technical descriptions and required quantities for the metallic piping component spares are listed in ***Appendix A***.

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4. Acceptance

This document has been seen and accepted by:

Name	Designation
Stefan Erasmus	Chief Technologist GX Engineering 2026-09-22
Xolani Dlamini	Snr. Turbine Maintenance Supervisor

5. Revisions

Date	Rev.	Compiler	Remarks
September 2026	2	A. Rudman	Incorporated review comments from Stefan Erasmus.
September 2026	1	A. Rudman	Following the rejection of Camden Power Station's sole-source Steercom application for a turnkey procurement project covering all spares required for the West HSSD, this Scope of Work was developed to address only the metallic piping components.

6. Acknowledgements

None

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7. Appendix A – Bill of Materials

To simplify the required spares list for the Camden West Half-Station Shutdown (HSSD) metallic piping components, this section has been included to eliminate any ambiguity regarding the types and quantities of spares required.

7.1 Plate and Piping Components

The following piping components shall be supplied to Camden Power Station. No deviations from the specified technical requirements shall be permitted.

Each piping component shall be supplied with an EN 10204 Type 3.1 inspection certificate in English. The certificate shall be traceable to the heat number permanently marked on the individual piping component/s.

The full technical descriptions, and required quantities applicable to this SOW, are listed in the Table below:

#	SHORT DESCRIPTION	STOCK NO.	TECHNICAL COMPONENT DESCRIPTION	QTY.
1	DN80 EN-FLANGE	774634	FLANGE; TYPE: PLATE FLANGE FOR WELDING, TYPE 01 (SLIP-ON); SIZE: DN80; MATERIAL: P235GH; FACING: B1 RAISED FACE; RATING: PN10; SPECIFICATION: EN 1092-1; EACH ITEM TO BE SUPPLIED WITH EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	10
2	DN100 EN-FLANGE	774658	FLANGE; TYPE: PLATE FLANGE FOR WELDING, TYPE 01 (SLIP-ON); SIZE: DN100; MATERIAL: P235GH; FACING: B1 RAISED FACE; RATING: PN10; SPECIFICATION: EN 1092-1; EACH ITEM TO BE SUPPLIED WITH EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	80
3	DN150 EN-FLANGE	774797	FLANGE; TYPE: PLATE FLANGE FOR WELDING, TYPE 01 (SLIP-ON); SIZE: DN150; MATERIAL: P235GH; FACING: B1 RAISED FACE; RATING: PN10; SPECIFICATION: EN 1092-1; EACH ITEM TO BE SUPPLIED WITH EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	100
4	DN200 EN-FLANGE	774663	FLANGE; TYPE: PLATE FLANGE FOR WELDING, TYPE 01 (SLIP-ON); SIZE: DN200; MATERIAL: P235GH; FACING: B1 RAISED FACE; RATING: PN10; SPECIFICATION: EN 1092-1; EACH ITEM TO BE SUPPLIED WITH EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	10
5	DN250 EN-FLANGE	774665	FLANGE; TYPE: PLATE FLANGE FOR WELDING, TYPE 01 (SLIP-ON); SIZE: DN250; MATERIAL: P235GH; FACING: B1 RAISED FACE (RF); RATING: PN10; SPECIFICATION: EN 1092-1; EACH ITEM TO BE SUPPLIED WITH EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	48

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#	SHORT DESCRIPTION	STOCK NO.	TECHNICAL COMPONENT DESCRIPTION	QTY.
6	DN450 ASME -FLANGE	774670	FLANGE; TYPE: SLIP-ON; SIZE: DN450 (NPS 18); MATERIAL: ASTM A105; FACING: RAISED FACE; PRESSURE RATING: CLASS 150; SPECIFICATION: ASME B16.5; EACH ITEM TO BE SUPPLIED WITH EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	50
7	DN100 ASME-PIPE	641561	PIPE; NOMINAL SIZE: DN100 (NPS 4); MATERIAL: ASTM A106 GRADE B; LENGTH: 6 M; WALL THICKNESS: SCHEDULE 40 (6.02 MM NOMINAL); CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B36.10M; EACH PIPE TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	15
8	DN150 ASME-PIPE	641575	PIPE; NOMINAL SIZE: DN150 (NPS 6); MATERIAL: ASTM A106 GRADE B; LENGTH: 6 M; WALL THICKNESS: SCHEDULE 40 (7.11 MM NOMINAL); CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B36.10M; EACH PIPE TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	25
9	DN250 ASME-PIPE	641560	PIPE; NOMINAL SIZE: DN250 (NPS 10); MATERIAL: ASTM A106 GRADE B; LENGTH: 6 M; WALL THICKNESS: SCHEDULE 40 (9.27 MM NOMINAL); CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B36.10M; EACH PIPE TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	15
10	DN450 ASME-PIPE	686242	PIPE; NOMINAL SIZE: DN450 (NPS 18); MATERIAL: ASTM A106 GRADE B; LENGTH: 6 M; WALL THICKNESS: SCHEDULE STANDARD (9.53 MM NOMINAL); CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B36.10M; EACH PIPE TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	10
11	DN150 ASME-ELBOW	642104	ELBOW; NOMINAL SIZE: DN150 (NPS 6); TYPE: 90° LONG RADIUS (LR); END CONNECTION: BUTT WELD (BW); MATERIAL: ASTM A234 WPB; WALL THICKNESS: SCHEDULE 40 (7.11 MM NOMINAL); CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B16.9; EACH ELBOW TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	50
12	DN250 ASME-ELBOW	642110	ELBOW; NOMINAL SIZE: DN250 (NPS 10); TYPE: 90° LONG RADIUS (LR); END CONNECTION: BUTT WELD (BW); MATERIAL: ASTM A234 WPB; WALL THICKNESS: SCHEDULE 40 (9.27 MM NOMINAL); CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B16.9; EACH ELBOW TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	25

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#	SHORT DESCRIPTION	STOCK NO.	TECHNICAL COMPONENT DESCRIPTION	QTY.
13	DN450 ASME-ELBOW	774796	ELBOW; NOMINAL SIZE: DN450 (NPS 18); TYPE: 90° LONG RADIUS (LR); END CONNECTION: BUTT WELD (BW); MATERIAL: ASTM A234 WPB; WALL THICKNESS: SCHEDULE STD (9.53 MM NOMINAL); CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B16.9; EACH ELBOW TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	10
14	DN150 ASME-TEE	642580	TEE; NOMINAL SIZE: DN150 (NPS 6); TYPE: EQUAL; END CONNECTION: BUTT WELD (BW); MATERIAL: ASTM A234 WPB; WALL THICKNESS: SCHEDULE 40 (7.11 MM NOMINAL); CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B16.9; EACH TEE TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	10
15	DN250 ASME-TEE	768974	TEE; NOMINAL SIZE: DN250 (NPS 10); TYPE: EQUAL; END CONNECTION: BUTT WELD (BW); MATERIAL: ASTM A234 WPB; WALL THICKNESS: SCHEDULE 40 (9.27 MM NOMINAL); CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B16.9; EACH TEE TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	6
16	DN450 ASME-TEE	774703	TEE; NOMINAL SIZE: DN450 (NPS 18); TYPE: EQUAL; END CONNECTION: BUTT WELD (BW); MATERIAL: ASTM A234 WPB; WALL THICKNESS: STANDARD (STD), 9.53 MM NOMINAL; CONSTRUCTION: SEAMLESS; DIMENSIONS: ASME B16.9; EACH TEE TO BE SUPPLIED WITH AN EN 10204 TYPE 3.1 INSPECTION CERTIFICATE IN ENGLISH.	8

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