Eskom	Strategy	Engineering

Title:	**Tender Technical Evaluation Strategy for Supply of Spares and Maintenance As and When Required of the H_2 dryer, H_2 skid, CO_2 evaporator skid, Stator Head Tank Panel and Gas Analysers**	Unique Identifier:	**555-EEP2136**
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		Disclosure Classification:	CONTROLLED DISCLOSURE

Compiled by	Functional Responsibility	Authorised by
.....	.....	.....
GT Dlamini	**Godfrey Mthombene**	**RT Nelwamondo**
Generator System Engineer	**EPE Manager**	**Engineering Manager**
Date: 12/02/2025	Date: 12/02/2025	Date: 12/02/2025

CONTENTS

Page

TABLES

1. INTRODUCTION

The H_2 dryer, H_2 skid, CO_2 evaporator, gas analysers and stator head tank panels are essential for running Kriel Power Station synchronous generators; maintenance of these sub-systems As and When Required is crucial for continuous operation of the generators, and this is can only be achieved if skilled and competent personnel perform the maintenance activities and the correct OEM (original equipment manufacturer) approved critical spares are supplied.

This document describes the process to be followed in performing technical evaluations during the tender evaluation for the maintenance and supply of spares for the H_2 dryer, H_2 skid, CO_2 evaporator skid, stator head tank panel and gas analysers. Spares to be supplied are listed on Appendix B.

The evaluation of tenders will be based on the tenderer's ability to meet both mandatory and qualitative requirements. A weighted score card approach will be used to evaluate the tenders against the *Employer*'s requirements.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document refers to the Supplier Technical Evaluation of the H_2 dryer, H_2 skid, CO_2 evaporator, gas analysers and stator head tank panel spares supply and maintenance; it covers the different aspects that will be evaluated and scored by the multi-disciplinary Technical Evaluation Team (TET) to complete the technical evaluation of the enquiry. The team members are listed and appointed in this document along with their responsibilities. The document also describes the acceptable and unacceptable risks and qualifications and/or conditions.

The Technical Evaluation Strategy will define the following technical evaluation criteria:

- Mandatory Evaluation Criteria
- Qualitative Evaluation Criteria
- TET Member Responsibilities
- Acceptable / Unacceptable Qualifications.

Once the Technical Evaluation Strategy is finalised and authorised for issue to market, no changes will be made to the evaluation criteria.

2.1.1 Purpose

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and TET member responsibilities for tender technical evaluation. The technical evaluation strategy serves as basis for the tender technical evaluation process. The criteria for strategy are aimed at answering the following questions for each tenderer:

- Capacity – Does the supplier have the bandwidth to deliver?
- Competency – Is the supplier diligent and can complete the task in each period?
- Consistency – Is there a consistent output from the supplier?
- Control of process – Does the supplier offer flexibility and have systematic control over his/her process?

- Commitment to Quality – Is there a system established by the supplier that works constantly for quality management checks?

2.1.2 Applicability

This Technical Evaluation Strategy is applicable to the evaluation of tenderers providing spares and maintenance services for the H_2 dryer, H_2 skid, CO_2 evaporator and gas analysers at Kriel Power Station.

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] 240-168966153: Generation Tender Technical Evaluation Procedure

[2] ISO 9001 Quality Management Systems

[3] 32-1033: Eskom Procurement and Supply Chain Management Policy

[4] 32-1034: Eskom Procurement and Supply Management Procedure

[5] 555-EEP2131: Supply of Spares and Maintenance As and When Required of the H_2 dryer, H_2 skid, CO_2 evaporator, Stator Head Tank Panel and Gas Analysers Scope of Work

2.2.2 Informative

[1] 240-168966153: Generation Tender Technical Evaluation Procedure

2.3 DEFINITIONS

Definition	Description
Confidential	The classification given to information that may be used by malicious/opposing/hostile elements to harm the objectives and functions of Eskom Holdings Limited
Enquiry	A competitive or non-competitive request for information, interest, quotations, or proposals made to a supplier, a group of suppliers or the market at large.
Tender	A tender refers to an open or closed competitive request for quotations / prices against a clearly defined scope / specification.

2.4 ABBREVIATIONS

Abbreviation	Description
A&M	Assert & Management
ATL	Accredited Test Laboratory
CoC	Certificate of Conformity
EPE	Electrical Plant Engineering
EMD	Electrical Maintenance Department
OEM	Original Equipment Manufacture
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

As per 240-168966153: Generation Tender Technical Evaluation Procedure

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

- 240-53716746: Tender Technical Evaluation Report Template
- 240-53716712: Tender Technical Evaluation Results Form Template
- 240-53716726: Tender Technical Evaluation Scoring Form Template

3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 70% for each section.

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	Gcina Dlamini	Generator System Engineer (EPE)
TET 2	Manie Van Staden	A&M Senior Consultant (Generation Engineering)
TET 3	Raosetene Mahlaku	EPE Senior Engineer

3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 2 defines all Mandatory Evaluation Criteria to be used as well as reference to specification and motivation for use of criteria. These criteria will not be scored. Each tender will be assessed on a YES/NO basis. If any answer below is NO the tenderer will be eliminated from the tendering process. ***To ease the evaluation process, the tenderers must submit files with a table of contents showing the section that contains the relevant criterion.***

Table 2: Mandatory Technical Evaluation Criteria

No	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	Ensure that APPENDIX B: TENDER RETURNABLE is completed	Completed APPENDIX B: TENDER RETURNABLE	N/A
2.	All submission to be written in the English Language	All submission to be written in the English Language; this includes data sheets, detailed maintenance instruction manuals, and technical specifications.	N/A
3.	Submit a deviation list	The tenderer is required to submit a list of deviations if any exist, or explicitly state there are none. This list should specifically include deviations related to the criteria outlined in Table 6 of the qualitative section.	N/A

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Compliant tenderers will be evaluated against a set of weighted qualitative evaluation. The evaluation criteria have been broken down into three sections; the first section is on Table 4, the second section is on Table 5, and the third is on Table 6. A percentage weighting for each section is allocated. The Tenderer must ensure that his submission/proposal contains all relevant data/proof to substantiate the Employer's weighted criteria as populated on both tables. If no information from the submission file is available per criteria to be evaluated, the weighted score for those criteria will result in a zero without further clarification. Only information, which is presented, but ambiguous to the evaluators, will be allowed for further clarification. ***To ease the evaluation process, the tenderers must submit files with a table of contents showing the section that contains the relevant criterion.***

Table 3: Qualitative Evaluation Criteria Scoring Table

Score	%	Definition
5	100	COMPLIANT • Meet technical requirement(s) AND. • No foreseen technical risk(s) in meeting technical requirements.
4	80	COMPLIANT WITH ASSOCIATED QUALIFICATIONS Meet technical requirement(s) with. 1. Acceptable technical risk(s) AND/OR. 2. Acceptable exceptions AND/OR. 3. Acceptable conditions.
2	40	NON-COMPLIANT • Does not meet technical requirement(s) AND/OR. • Unacceptable technical risk(s) AND/OR. • Unacceptable exceptions AND/OR. • Unacceptable conditions.
0	0	TOTALLY DEFICIENT OR NON-RESPONSIVE

Note 1: Foreseen acceptable and unacceptable risk(s), exceptions and conditions shall be unambiguously defined in the relevant Tender Technical Evaluation Strategy.

Note 2: The scoring table does not allow for scoring of 1 and 3

Note 3: The minimum weighted final score (threshold) required for a tenderer to be considered from a technical perspective is 70% for each Section. If the tenderer achieves a score of 70% or higher in one section but then scores less than 70 % in another section, they will not advance or be further considered. It's mandatory for tenderers to attain a minimum weighted score of 70 % in all three sections to proceed.

Note 4: The evaluation process involves a pass/fail threshold set at 80% for each section criterion. If a tenderer scores below 80% in any criterion, it highlights potential risks, scoring 80% or above on each criterion is ideal. While the pass/fail mark does not solely determine whether a tenderer will advance, in scenarios where multiple tenders meet the 70% threshold as highlighted above, those scoring above 80% in most criteria are preferred for the tender award.

Table 4: Qualitative Technical Evaluation Criteria: Supply of OEM Spares

<table>
<tr><th></th><th colspan="2">Qualitative Technical Criteria Description</th><th>Reference to Technical Specification / Tender Returnable</th><th>Criteria Weighting (%)</th><th>Criteria Sub Weighting (%)</th><th>Pass/Fail Threshold</th><th>Pass/Fail</th></tr>
<tr><td>1.</td><td colspan="2">General requirements</td><td></td><td>40</td><td></td><td>≥ 80%</td><td></td></tr>
<tr><td></td><td>1.1</td><td>Warranty of critical spares as indicated on Appendix B to be honoured by the OEM or OEM agent/representative</td><td>Warranty of spares to be honoured by the OEM or OEM agent/representative and the tenderer submits such an agreement.
<table><tr><th>Delivery period (T)</th><th>Score</th></tr><tr><td>Warranty provided for all critical spares</td><td>5</td></tr><tr><td>Warranty provided for 80% of all critical spares</td><td>4</td></tr><tr><td>Warranty provided for 50% of all critical spares</td><td>2</td></tr><tr><td>No warranty provided for any of the critical spares</td><td>0</td></tr></table></td><td></td><td>40</td><td></td><td></td></tr>
<tr><td>2.</td><td colspan="2">Delivery</td><td></td><td>20</td><td></td><td>≥ 80%</td><td></td></tr>
<tr><td></td><td>2.1</td><td>Delivery of spares to be indicated by tendered by filling Appendix B</td><td>All required spares to be delivered to the Employer 4 weeks from the day the purchase order is placed by the Employer.
<table><tr><th>Delivery period (T)</th><th>Score</th></tr><tr><td>$T \leq 4\ week$(For all spares or 90% of the spares listed in Appendix B)</td><td>5</td></tr><tr><td>$4\ weeks < T \leq 8\ week$ (For all spares or 90% of the spares listed in Appendix B)</td><td>4</td></tr><tr><td>$8\ weeks < T \leq 12\ week$ (For all spares or 90% of the spares listed in Appendix B)</td><td>2</td></tr><tr><td>$T > 12\ week$ (For all spares or 90% of the spares listed in Appendix B)</td><td>0</td></tr></table></td><td></td><td>20</td><td></td><td></td></tr>
</table>

3.	**Documentation**			**40**		≥ 80%	
	3.1	Equipment must be selected and comply to SANS 10108.	Provide ATL certificate to prove that the H_2 dryer and H_2 skid electrical & electronic components/equipment to be supplied are Ex-rated		10		
	3.2	Drawings and data sheets of equipment/components to be provided	The supplier will supply any additional information such as brochure, general arrangement drawing, certificates, detailed specification,		15		
	3.3	Provide preservation procedures for components	The tenderer shall supply preservation/storage procedure/s		15		
				TOTAL: 100			

Table 5: Qualitative Technical Evaluation Criteria: Maintenance Work As and When Required

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)	Pass/Fail Threshold	Pass/Fail
1.	**General requirements**			**60**		$\geq 80\%$	
	1.1	Proven track record in performing maintenance service for the H_2 and CO_2 gas systems.	The tenderer is required to submit work orders of any work they have carried out at Eskom sites in the last five years, specifically any work involving the H_2 dryer, H_2 skid, CO_2 skid, gas analysers and stator head tank panel.		10		
	1.2	Adhering to or maintain outage times lines.	The tenderer confirms in a letter with the company's letterhead signed by the company's representative that they will attend all outage meetings and adhere to outage schedule.		10		
	1.3	After the maintenance service, gas system equipment should be signed off by an authorised gas practitioner registered with an accredited institution.	• The tenderer provides a valid certificate for a gas practitioner who is authorized to provide Compliance Certificates (COC) for installations involving hydrogen (H_2), carbon dioxide (CO_2), nitrogen (N_2), and oxygen (O_2) • An organizational chart endorsed by a representative from the company, which includes the certified gas practitioner as a member of the team must be provided. • In cases where the gas practitioner is not a direct employee of the bidding company, a formal letter on the company's letterhead is needed. This letter must have the company's letterhead and must be signed by a company representative and must confirm that the gas practitioner, whose certification is provided, will conduct assessments of the gas system after each maintenance session and will issue a Compliance Certificate after every service.		30		
	1.4	Submission of a task schedule	• A service contract will be utilised hence the supplier needs to submit a tasks schedule for all activities on the scope of work.		5		
	1.5	Modification	• Tenderers are expected to provide a detailed proposal for Unit 4, focusing on the modifications needed for the installation H2 gas analyser and commissioning of the gas analyser panel as a whole. The necessary gas analyser and calibration gases will be supplied by the employer.		5		
2.	**Documentation**			**20**		$\geq 80\%$	
	2.2	A Certificate of Conformity (CoC) for gas installation shall be required for all installations as per OHS Act 85 of 1993.	Tenderer to provides five Certificate of Conformity (CoC) for gas installation for similar work conducted in the last five years. This includes any work related to the H_2 dryer, H_2 skid, CO_2 skid, gas analysers and stator head tank panel.		10		
	2.3	Quality Control Plan	Tenderer to provide a quality control plan for similar work conducted in the last five years. This includes any work related to the H_2 dryer, H_2 skid, CO_2 skid, gas analysers and stator head tank panel. Note: The quality system needs to be aligned with the ISO 9001 standard.		3		

<table>
<tr><td></td><td>2.4</td><td>Field Service report</td><td>Tenderer to provide a field service report for similar work conducted in the last five years. This includes any work related to the H_2 dryer, H_2 skid, CO_2 skid, gas analysers and stator head tank panel.</td><td></td><td>3</td><td></td><td></td></tr>
<tr><td></td><td>2.5</td><td>Data packs</td><td>The tenderer confirms in a letter with the company’s letterhead signed by the company’s representative that they will submit a data pack in both printed and electronic formats after completion of every service. It must include a comprehensive list of all components used, complete with their technical specifications, calibration certificates, and technical drawings.</td><td></td><td>2</td><td></td><td></td></tr>
<tr><td></td><td>2.6</td><td>Warranty of work</td><td>The tenderer must submit a formal letter on the company’s letterhead, signed by an authorized representative. This letter should confirm the tenderer’s commitment to be present on-site during critical phases such as the return to service, purging, and pressure testing of the generator to address any arising issues.</td><td></td><td>2</td><td></td><td></td></tr>
<tr><td>3.</td><td colspan="2">Transparency and Conflict Resolution</td><td></td><td>20</td><td></td><td>$\geq 80\%$</td><td></td></tr>
<tr><td></td><td>3.4</td><td>Potential conflict that might occur during the execution of the scope of work.</td><td>The tenderer must disclose any conflicts, Non-Conformance Reports (NCR), and disagreements previously encountered with Eskom, along with the resolutions reached for these issues.
<table>
<tr><th>Scoring criteria</th><th>Score</th></tr>
<tr><td>• The tenderer provides a comprehensive list of all disputes, Non-Conformance Reports (NCR), and disagreements with Eskom or any other parties related to similar projects, including those resolved and unresolved.
• The tenderer declares in a letter that has the company’s letterhead and signed by a company representative that there the company does not have any past disputes or disagreements with Eskom.</td><td>5</td></tr>
<tr><td>The tenderer provides some information about past disputes and resolutions but leaves out significant incidents or details that could impact the assessment.</td><td>4</td></tr>
<tr><td>The tenderer shows attempts at resolving disputes, but the outcomes are not fully satisfactory or there is insufficient evidence of mutual agreement on the resolutions. This indicates some effort towards conflict resolution but suggests areas for improvement.</td><td>2</td></tr>
<tr><td>The tenderer fails to provide any information about past disputes, suggesting a lack of transparency.</td><td>0</td></tr>
</table></td><td></td><td>20</td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td>TOTAL: 100</td><td></td><td></td><td></td></tr>
</table>

Table 6: Foreseen acceptable / unacceptable technical risks & exceptions

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)	Pass/Fail Threshold	Pass/Fail
1.	Acceptable Technical Risks	• Potential delays in equipment delivery or maintenance if they do not significantly impact the outage schedule or result in additional costs. • Occasional fluctuations in workforce availability or skill level that can be managed through training or contingency planning. The tenderer must submit a formal letter on the company's letterhead, signed by an authorized representative confirming their commitment to mitigate all *Acceptable Technical Risks* listed above. Any deviations relating to this commitment must be included in the deviation list, particularly under the fifth mandatory requirement as detailed in Table 2. This letter should also detail these deviations.	**2**5		≥ 80%	
2.	Unacceptable Technical Risks	• Major design flaws or significant deviations from the scope of work that could compromise the safety or performance of the turbogenerators gas system. • Severe delays in equipment delivery or maintenance that could lead to equipment failure, substantial financial losses, or delay on the return to service of a unit. • Significant changes in component availability or pricing that could cause the outage work to exceed the budget or become economically unfeasible. • Workforce shortages or inadequately skilled labour, which could result in poor maintenance or frequent equipment failures. The tenderer must submit a formal letter on the company's letterhead, signed by an authorized representative confirming their commitment to mitigate all *Unacceptable Technical Risks* listed above. Any deviations relating to this commitment must be included in the deviation list, particularly under the fifth mandatory requirement as detailed in Table 2. This letter should also detail these deviations.	**2**5		≥ 80%	
3.	Acceptable Technical Exceptions / Conditions	• The use of alternative materials or components, as long as they meet the necessary quality, performance, and safety requirements. • Changes in installation methods or techniques, provided they adhere to industry best practices and do not compromise the project's safety or performance. The tenderer must submit a formal letter on the company's letterhead, signed by an authorized representative confirming their commitment to mitigate all *Acceptable Technical Exceptions / Conditions* listed above. Any deviations relating to this commitment must be included in the deviation list, particularly under the fifth mandatory requirement as detailed in Table 2. This letter should also detail these deviations.	**2**5		≥ 80%	

4.	Unacceptable Technical Exceptions / Conditions		The use of substandard or untested materials or components that could result in equipment failure or safety hazards. • Tenderer not supplying all items in the full scope. • Tenderer not performing the full scope of work • Non-compliance with industry best practices or relevant regulations during maintenance of the generator gas system, which could lead to unsafe conditions or equipment malfunctions. • Significant alterations to the project timeline or schedule that could cause substantial delays, financial losses, or failure to return the unit to service. The tenderer must submit a formal letter on the company's letterhead, signed by an authorized representative confirming their commitment to mitigate all *Unacceptable Technical Exceptions / Conditions* listed above. Any deviations relating to this commitment must be included in the deviation list, particularly under the fifth mandatory requirement as detailed in Table 2. This letter should also detail these deviations.	**25**			
				TOTAL: 100			

3.5 TET MEMBER RESPONSIBILITIES

Table 7: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3
1.	X	X	X
2.	X	X	X
3.	X	X	X
4.	X	X	X
5.	X	X	X
Qualitative Technical Evaluation Criteria: Supply of OEM Spares	**TET 1**	**TET 2**	**TET 3**
1.	X	X	X
2.	X	X	X
3.	X	X	X
Qualitative Technical Evaluation Criteria: Maintenance Work As and When Required	**TET 1**	**TET 2**	**TET 3**
1.	X	X	X
2.	X	X	X
3.	X	X	X

Qualitative Technical Evaluation Criteria: Foreseen acceptable / unacceptable technical risks & exceptions	TET 1	TET 2	TET 3
1.	X	X	X
2.	X	X	X
3.	X	X	X
4.	X	X	X

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Rofhiwa Nelwamondo	Engineering Manager
Godfrey Mthombene	EPE Manager
Manie Van Staden	A&M Senior Consultant (Generation Engineering)
Koketso Moagi	Outage Senior Advisor
Lindiwe Mhlauli	Outage Coordinator-Generators
Raosetene Mahlaku	EPE Senior Engineer

5. REVISIONS

Date	Rev.	Compiler	Remarks
February 2025	3	GT Dlamini	Scope revised to be performed as and when required.
August 2024	2	GT Dlamini	Mandatory criteria reduced after a meeting with the procurement and outage teams
April 2024	1	GT Dlamini	First signed revision
March 2024	0	GT Dlamini	New document

6. DEVELOPMENT TEAM

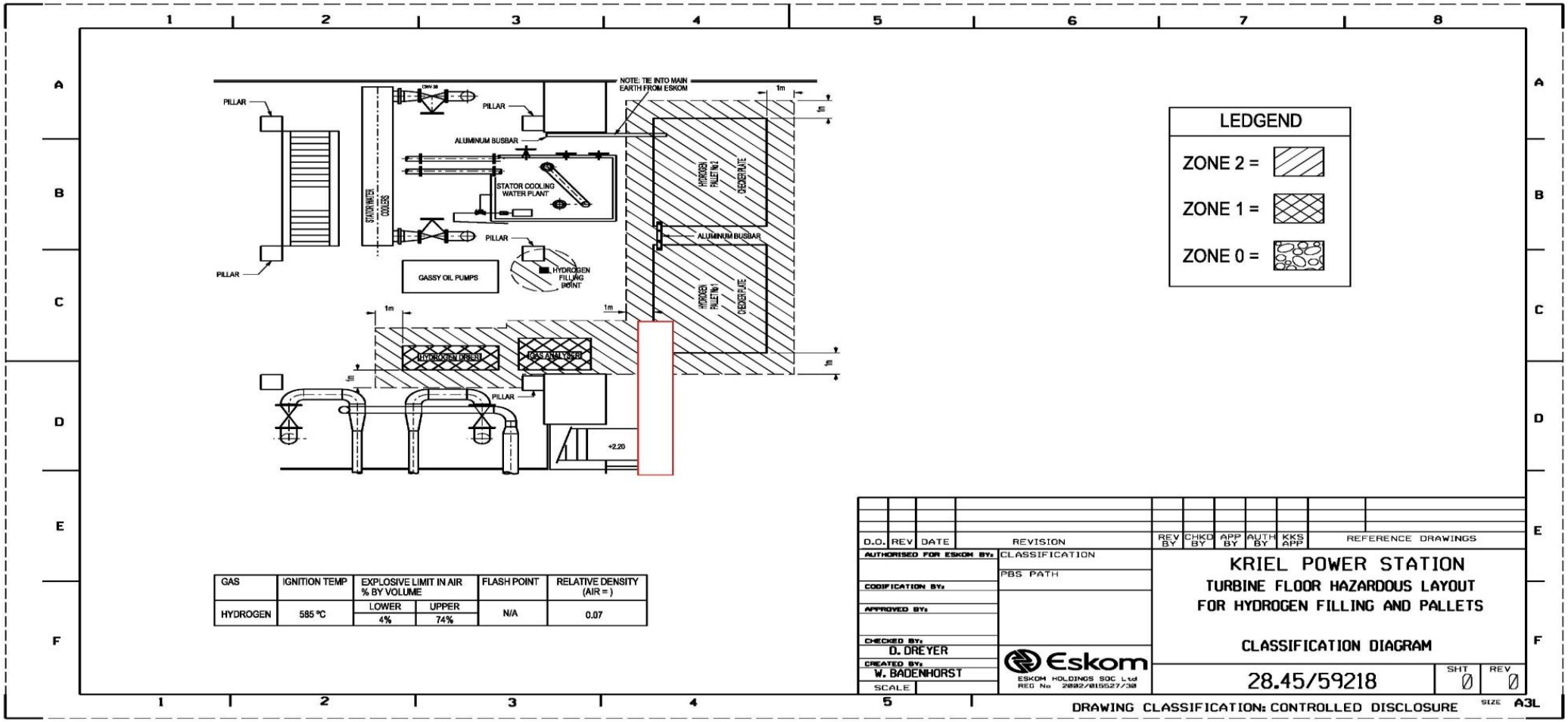
The following people were involved in the development of this document:

- GT Dlamini

7. ACKNOWLEDGEMENTS

The author would like to thank all parties involved for their contribution.

8. APPENDIX A: ZONE CLASSIFICATION DIAGRAM



GAS	IGNITION TEMP	EXPLOSIVE LIMIT IN AIR % BY VOLUME		FLASH POINT	RELATIVE DENSITY (AIR =)
		LOWER	UPPER		
HYDROGEN	585 °C	4%	74%	N/A	0.07

D.O.	REV	DATE	REVISION	REV BY	CHKD BY	APP BY	AUTH BY	KKS APP	REFERENCE DRAWINGS
AUTHORISED FOR ESKOM BY:			CLASSIFICATION						
CODIFICATION BY:			PBS PATH						
APPROVED BY:									
CHECKED BY: D. DREYER									
CREATED BY: W. BADENHORST									
SCALE									

KRIEL POWER STATION
TURBINE FLOOR HAZARDOUS LAYOUT
FOR HYDROGEN FILLING AND PALLETS

CLASSIFICATION DIAGRAM

Eskom
ESKOM HOLDINGS SOC Ltd
REG No 2002/015527/30

28.45/59218 | SHT Ø | REV Ø

DRAWING CLASSIFICATION: CONTROLLED DISCLOSURE SIZE A3L

9. APPENDIX B: TENDER RETURNABLE

Bill of Materials										
Sub system	***Component***	***Part Number***	***Stock Number***	***Critical (Yes/No)***	***Warranty (Yes/No)***	***Support from OEM (Yes, No)***	***Contact details of the OEM***	***Committed delivery time (weeks)***	***Stock level kept in SA***	***Level of stock kept abroad***
H_2 DRYER &SKID	Electrical Heater element, 115 V, 1064 W	D53251	0711376							
H_2 DRYER &SKID	Operator Interface Display, Preprogrammed (compatible with MicroLogix 1400 PLC & MicroLogix 1100)	D36946	0711406							
H_2 DRYER &SKID	Programmable Controller (PLC), Preprogrammed (MicroLogix 1400 & MicroLogix 1100)	D36945	0711408							
H_2 DRYER &SKID	Flow meter	To be provide by the Contractor	Still to be catalogued							
H_2 DRYER &SKID	Feed through glands for the motor & heater cables	To be provide by the Contractor	Still to be catalogued							