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## 1. INTRODUCTION

Drakensberg Pumped Storage Scheme consists of four pumped storage units. Each unit has a main unit shaft as one of the major components. The shaft rotates by means of water flowing through a runner of the turbine, which turns the rotor of the generator and generate electricity to the national grid of South Africa. The flow rate of the water is controlled with guide vanes in conjunction with a governor system.

The governor systems consist of various wearing components to allow the guide vane servomotors, operating ring and guide vanes to move. These wearing components are planned to be replaced during the upcoming Turbine Refurbishment outages planned for Drakensberg PSS.

The guide vanes are guided by bushes and lubricated by grease. The guide vane bushes are designed to house seals to ensure proper lubrication of the bushes and to seal the water from entering the bush-journal interface which will tend to wash out the lubricant and lead to accelerated wear on the bushes.

This document discusses the tender technical evaluation strategy for the supply and delivery of guide vane seals.

## 2. SUPPORTING CLAUSES

### 2.1 SCOPE

The scope of work includes the following:

- The *Supplier* designs, manufactures, inspects, supplies and delivers the following components to the *Employer's* site (Eskom Drakensberg Pumped Storage Scheme):

**Table 1: Goods to be supplied (Batch 1 and Batch 2 combined)**

Item	Qty.	Item Description
1	90	Middle bush single acting main lip seal
2	90	Middle bush double acting seal
3	250	Middle bush gland packing seals
4	90	Bottom bush single acting grease release lip seal
5	90	Bottom bush double acting seal
6	90	Bottom bush single acting main lip seal
7	90	Guide vane bottom blade collar seal

Refer to the batch descriptions in Section 2.3

- The *Supplier* replaces all damaged or defective seals.
- The *Supplier* provides manufacturing drawings to the *Employer*, indicating all details required for future manufacturing. The *Employer* reserves the right to use the manufacturing drawings for future manufacturing at a manufacturer of the *Employer's* choice.

The technical specification of the *goods* is thoroughly discussed in the Technical Specification Document 31A/11111-P2-A.

#### 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.

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## 2.1.2 Applicability

This document applies to the Drakensberg Pumped Storage Scheme Turbine System. The project applies to the Turbine Engineering Department, Drakensberg Mechanical Maintenance Department, Materials Management Department, Procurement Department, Outage Department and Drakensberg Pumped Storage Scheme.

## 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] 240-48929482: Tender Technical Evaluation Procedure
- [2] Doc. No. 31A/11111-P2-A - Technical Specification – DRP – Guide Vane Seals

### 2.2.2 Informative

- [3] N/A

## 2.3 DEFINITIONS

### 2.3.1 Batch Definitions

#### 2.3.1.1 Batch 1

Batch 1 includes one half of all *goods*, including some spares as listed in Table 2. This list of quantities is drafted to be ready for the first and second Turbine Refurbishment outage at Drakensberg Unit 3 and Unit 4, which is currently planned to start on 20 August 2025 and 2 September 2025 respectively and therefore need to be on site on 20 July 2025.

**Table 2: Batch 1 Quantities**

Item	Qty.	Item Description
1	45	Middle bush single acting main lip seal
2	45	Middle bush double acting seal
3	125	Middle bush gland packing seals
4	45	Bottom bush single acting grease release lip seal
5	45	Bottom bush double acting seal
6	45	Bottom bush single acting main lip seal
7	45	Guide vane bottom blade collar seal

#### 2.3.1.2 Batch 2

Batch 2 includes the remainder of all components as listed in Table 3 below and will be required to be delivered in June 2026. A slight adjustment in seal design might be implemented between the delivery of Batch 1 and the manufacturing and delivery of Batch 2, depending on the performance of the *goods* as delivered in Batch 1. The *Employer* will provide the go-ahead to start manufacturing batch 2 in writing once the decision is finalised by the *Employer*.

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**Table 3: Batch 2 Quantities**

<b>Item</b>	<b>Qty.</b>	<b>Item Description</b>
1	45	Middle bush single acting main lip seal
2	45	Middle bush double acting seal
3	125	Middle bush gland packing seals
4	45	Bottom bush single acting grease release lip seal
5	45	Bottom bush double acting seal
6	45	Bottom bush single acting main lip seal
7	45	Guide vane bottom blade collar seal

### 2.3.2 Classification

**Controlled Disclosure:** Controlled Disclosure to external parties (either enforced by law, or discretionary).

### 2.4 ABBREVIATIONS

<b>Abbreviation</b>	<b>Description</b>
Doc. No.	Document Number
N/A	Not Applicable
PSS	Pumped Storage Scheme
QCP	Quality Control Plan
Rev.	Revision

### 2.5 ROLES AND RESPONSIBILITIES

#### **Tender Technical Evaluation Team Members:**

These members are responsible to study the Technical Specification, develop the Tender Engineering Evaluation Strategy as well as to review and evaluate technical aspects of the tender documentation as per the Tender Engineering Evaluation Strategy.

### 2.6 PROCESS FOR MONITORING

N/A

### 2.7 RELATED/SUPPORTING DOCUMENTS

All referenced documents as per Section 2.2.

## 3. TENDER TECHNICAL EVALUATION STRATEGY

### 3.1 TECHNICAL EVALUATION THRESHOLD

A weighted score-card approach is used to evaluate the technical compliance of tenders against the technical specification. Tenders need to have a minimum weighted score of 70% to technically qualify for further evaluation. The evaluation of the tender submission will be based on the tender's ability to meet the technical requirements.

Mandatory Technical Evaluation Criteria (gatekeepers) are 'must meet' criteria. These criteria shall not be weighted or scored any points but shall be assessed on a Yes/No basis as to whether or not the criteria

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are met. An assessment of 'No' against any criteria shall technically disqualify the tender and further evaluation against the Qualitative Criteria will therefore not be performed.

Qualitative Technical Evaluation Criteria is a weighted evaluation used to identify the highest technically ranked tender after determining that all the Mandatory Evaluation Criteria have been met. The Qualitative Evaluation Criteria are weighted to reflect the relevant importance of each criterion. The minimum weighted final score (threshold) required for the tender to be considered from the technical perspective is 70%.

**Table 4: Qualitative Evaluation Criteria Scoring Guideline**

<b>Score</b>	<b>Percent (%)</b>	<b>Definition</b>
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; Acceptable technical risk(s) AND/OR; Acceptable exceptions AND/OR; 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
<p>Note 1: The scoring table does not allow for scoring of 1 and 3.</p> <p>Note 2: Foreseen acceptable and unacceptable risk(s), exceptions and conditions shall be unambiguously defined in the relevant Tender Technical Evaluation Strategy.</p>		

### 3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 6: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
3.3.1	Material Data Sheets	<p>The required mechanical property specification for the seal material is discussed in the Technical Specification (Doc. 31A/11111-P2-A).</p> <p>The <i>Supplier</i> provides data sheets for the material to be used for the manufacturing of the seals.</p> <p>The material must be Polyurethane as per the Technical Specification (Doc. 31A/11111-P2-A).</p>	<p>The Drakensberg guide vane seal material specification is outlined in Technical Specification (Doc. 31A/11111-P2-A) and requires to be of material Polyurethane.</p>

### 3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 7: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
3.4.1	<p><b>Material Specification Compliance</b></p> <p>The suggested seal material is required to comply to the specification as detailed in the Technical Specification (doc. 31A/11111-P2-A).</p> <p>The material properties displayed on the material data sheet, or any other test report submitted by the <i>Supplier</i> will be used for evaluation purposes by the <i>Employer</i>. Each material property is evaluated separately to check for compliance.</p> <p>The acceptable and unacceptable risks for this qualitative technical criterion are discussed in 3.6.1 for each of the material properties separately.</p>	<p>Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A) for a list of all required specifications for each material property.</p>	20%	N/A
3.4.1.1	<p><b>Temperature Range</b></p> <p>The temperature range specification is 0°C to 30°C. A seal material able to withstand a minimum temperature of 0°C and a maximum temperature of at least 30°C will be accepted by the <i>Employer</i>.</p>	<p>Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A).</p>		10%

	<b>Qualitative Technical Criteria Description</b>	<b>Reference to Technical Specification / Tender Returnable</b>	<b>Criteria Weighting (%)</b>	<b>Criteria Sub Weighting (%)</b>
<b>3.4.1.2</b>	<b>Shore Hardness</b> The shore hardness specification is 88 to 93 (Durometer A). A shore hardness in this range will be accepted by the <i>Employer</i> .	Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A).		25%
<b>3.4.1.3</b>	<b>100% Modulus</b> The 100% modulus specification is 7 to 14MPa. A 100% modulus in this range will be accepted by the <i>Employer</i> .	Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A).		10%
<b>3.4.1.4</b>	<b>Tensile Strength</b> The tensile strength specification is above and including 30MPa. A tensile strength above or equal to 30MPa will be accepted by the <i>Employer</i> .	Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A).		10%
<b>3.4.1.5</b>	<b>Elongation at Break</b> The elongation at break specification is above and including 400%. An elongation at break above or equal to 400% will be accepted by the <i>Employer</i> .	Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A).		10%
<b>3.4.1.6</b>	<b>Compression Set</b> The compression set specification is below and including 30%. A compression set below or equal to 30% will be accepted by the <i>Employer</i> .	Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A).		20%
<b>3.4.1.7</b>	<b>Resilience, Rebound</b> The resilience or rebound specification is above and including 40%. A resilience or rebound above or equal to 40% will be accepted by the <i>Employer</i> .	Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A).		5%
<b>3.4.1.8</b>	<b>Abrasion Resistance</b> The abrasion resistance specification is above and including 200 as per the NBS index. An abrasion resistance above or equal to 200 will be accepted by the <i>Employer</i> .	Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A).		10%

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
3.4.2	<p><b>Dimensional Specification Compliance</b></p> <p>The <i>Supplier</i> provides high-level designs for each of the different required seals as listed in items 3.4.2.1 to 3.4.2.7, considering the purpose of the application, seal groove dimensions, sealing surface dimensions, working fluids and pressure requirements.</p> <p>The <i>Supplier</i> submits the high-level design drawings with the seal groove dimensions, sealing surface dimensions, high-level seal dimensions, lip interference dimensions and working fluids clearly stated.</p> <p>The <i>Employer</i> will review the high-level designs for acceptance.</p> <p>The acceptable and unacceptable risks for this qualitative technical criterion are discussed in 3.6.1 for each of the different seals. The acceptable and unacceptable exceptions for this qualitative technical criterion are discussed in 3.6.2 for each of the different seals.</p>	Refer to Section 7.2 in the Technical Specification (doc. 31A/11111-P2-A).	20%	
3.4.2.1	<b>Middle bush single acting main lip seal</b>	Refer to Section 7.2.1.1 in the Technical Specification (doc. 31A/11111-P2-A).		15%
3.4.2.2	<b>Middle bush double acting seal</b>	Refer to Section 7.2.1.2 in the Technical Specification (doc. 31A/11111-P2-A).		20%
3.4.2.3	<b>Middle bush gland packing seal</b>	Refer to Section 7.2.1.3 in the Technical Specification (doc. 31A/11111-P2-A).		10%
3.4.2.4	<b>Bottom bush single acting grease release lip seal</b>	Refer to Section 7.2.2.1 in the Technical Specification (doc. 31A/11111-P2-A).		10%
3.4.2.5	<b>Bottom bush double acting seal</b>	Refer to Section 7.2.2.2 in the Technical Specification (doc. 31A/11111-P2-A).		20%
3.4.2.6	<b>Bottom bush single acting main lip seal</b>	Refer to Section 7.2.2.3 in the Technical Specification (doc. 31A/11111-P2-A).		15%
3.4.2.7	<b>Guide vane bottom blade collar seal</b>	Refer to Section 7.2.2.4 in the Technical Specification (doc. 31A/11111-P2-A).		10%

	<b>Qualitative Technical Criteria Description</b>	<b>Reference to Technical Specification / Tender Returnable</b>	<b>Criteria Weighting (%)</b>	<b>Criteria Sub Weighting (%)</b>
<b>3.4.3</b>	<p><b>Design Pressure Confirmation</b></p> <p>The <i>Supplier</i> provides written confirmation of all seal designs conforming to the pressure specification of 1 to 72bar.</p> <p>The <i>Supplier</i> take note that the seals will operate and be required not only to seal at a maximum pressure of 72bar, but in a range of 1 to 72bar due to different operation modes.</p> <p>The acceptable and unacceptable exceptions for this qualitative technical criterion are discussed in 3.6.2 for each of the different seals.</p>	Refer to Section 7.1, Table 3, in the Technical Specification (doc. 31A/11111-P2-A) for the pressure specification.	<b>10%</b>	
<b>3.4.4</b>	<p><b>Draft Measurement Check Sheets.</b></p> <p>The <i>Supplier</i> provides a dimensional check sheet for each seal to be supplied. The dimensional check sheet includes the inner diameter, outer diameter, height, interferences (preloads), clearances and lip dimensions for each seal. Refer to Document 31A/11111-P2-A for the requirements regarding the dimensions.</p> <p>Acceptable and unacceptable risks for this qualitative technical criterion can be found in Section 3.6.1. Acceptable and unacceptable exceptions for this qualitative technical criterion can be found in Section 3.6.2.</p>	Refer to Section 8.1 in the Technical Specification (doc. 31A/11111-P2-A).	<b>10%</b>	N/A
<b>3.4.5</b>	<p><b>Proof of similar work executed and capabilities.</b></p>		<b>10%</b>	N/A
<b>3.4.5.1</b>	<p><b>Proof of similar services provided.</b></p> <p>The <i>Supplier</i> supplies a list of services provided, similar to supplying of the polyurethane components as listed in Table 1, as evidence. The similar services provided should cover at least 80% of the specified dimensions of the items as listed in Table 1.</p> <p>Acceptable and unacceptable risks for this qualitative technical criterion are discussed in 3.6.2.</p>	The <i>Supplier</i> supplies a list of polyurethane seals previously supplied to the <i>Employer</i> (or other companies), as part of the tender returnable documents for acceptance.		60%

	<b>Qualitative Technical Criteria Description</b>	<b>Reference to Technical Specification / Tender Returnable</b>	<b>Criteria Weighting (%)</b>	<b>Criteria Sub Weighting (%)</b>
<b>3.4.5.2</b>	<p><b>Capabilities.</b></p> <p>The <i>Supplier</i> provides a company profile stipulating their capabilities as a seal manufacturing company, including photos of the <i>Supplier's</i> workshop to indicate the company's capabilities which is in line with the scope of work. The <i>Employer</i> reserves the right to visit the <i>Supplier's</i> premises if required.</p> <p>Acceptable and unacceptable exceptions for this qualitative technical criterion can be found in Section 3.6.2.</p>	The <i>Supplier</i> submits a company profile, including photos of their workshop to indicate their capabilities as a company to manufacture the seals, as part of the tender returnable documents to the <i>Employer</i> for acceptance.		40%
<b>3.4.6</b>	<p><b>Quality control plan.</b></p>		<b>5%</b>	N/A
<b>3.4.6.1</b>	<p><b>Detailed quality control plan</b></p> <p>The <i>Supplier</i> submits a detailed Quality Control Plan (QCP) as part of the tender returnable documents to the <i>Employer</i> for acceptance. The <i>Employer</i> reserves the right to revise the QCP after order placement.</p> <p>Acceptable and unacceptable risks for this qualitative technical criterion can be found in Section 3.6.1.</p>	The QCP must include the high-level scope as per the Technical Specification (Doc. 31A/11111-P2-A):		80%
<b>3.4.6.2</b>	<p><b>Intervention points</b></p> <p>The QCP must include intervention points (including hold and witness points) indicating the quality control planned for this project.</p>	The <i>Supplier</i> submits intervention points (within the QCP) as part of the tender returnable documents to the <i>Employer</i> for acceptance.		20%
<b>3.4.7</b>	<p><b>Lead Time</b></p> <p>The <i>supplier</i> provides written confirmation of the lead time for each batch as part of the tender returnable documents for the <i>Employer's</i> acceptance. The lead time starts at Purchase Order placement and finishes when the <i>goods</i> are delivered by the <i>Supplier</i> and accepted by the <i>Employer</i>.</p> <p>The lead time specification for the delivery of the <i>goods</i> is as follows.</p> <ul style="list-style-type: none"> <li>• Batch 1 lead time = 2 months or less</li> <li>• Batch 2 lead time = 3 months or less (from confirmation of possible design review change as discussed in the Batch 2 definition)</li> </ul> <p>Acceptable and unacceptable risks for this qualitative technical criterion can be found in Section 3.6.1.</p>	The lead time specification for the delivery of the <i>goods</i> was determined to ensure readiness for the Turbine Refurbishment outages planned for Drakensberg PSS.	<b>20%</b>	

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
3.4.8	<p><b>Deviations.</b></p> <p>The <i>Supplier</i> lists all their technical deviations from the Technical Specification document (31A/11111-P2-A). If there are none, the <i>Supplier</i> must clearly indicate this in writing for the <i>Employer's</i> review, as a non-response will be evaluated as non-responsive (Score = 0).</p>		5%	
<b>TOTAL</b>			<b>100%</b>	N/A

### 3.5 TET MEMBER RESPONSIBILITIES

Table 8: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3
3.3.1	X	X	X
Qualitative Criteria Number	TET 1	TET 2	TET 3
3.4.1	X	X	X
3.4.2	X	X	X
3.4.3	X	X	X
3.4.4	X	X	X
3.4.5	X	X	X
3.4.6	X	X	X
3.4.7	X	X	X
3.4.8	X	X	X

### 3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE RISKS & EXCEPTIONS

#### 3.6.1 Risks

**Table 9: Acceptable Technical Risks (Scoring 4 out of 5)**

Risk	Description
1.	Refer to qualitative technical criteria number 3.4.1.1 – Material Specification Compliance – Temperature Range. The risk of the proposed seal material withstanding a minimum temperature of 0°C and a maximum of only 25°C, will be seen as an acceptable risk and scored accordingly.
2.	Refer to qualitative technical criteria number 3.4.1.2 – Material Specification Compliance – Shore hardness. The risk of the proposed seal material having a shore hardness of between 85 and 88 (Durometer A), will be seen as an acceptable risk and scored accordingly.
3.	Refer to qualitative technical criteria number 3.4.1.3 – Material Specification Compliance – 100% Modulus. The risk of the proposed seal material having a 100% modulus of 5 to 7MPa or 14 to 16MPa, will be seen as an acceptable risk and scored accordingly.
4.	Refer to qualitative technical criteria number 3.4.1.4 – Material Specification Compliance – Tensile strength. The risk of the proposed seal material having a tensile strength of 25 to 30MPa, will be seen as an acceptable risk and scored accordingly.
5.	Refer to qualitative technical criteria number 3.4.1.5 – Material Specification Compliance – Elongation at break. The risk of the proposed seal material having an elongation at break of 350% to 400%, will be seen as an acceptable risk and scored accordingly.
6.	Refer to qualitative technical criteria number 3.4.1.6 – Material Specification Compliance – Compression set. The risk of the proposed seal material having a compression set of 30% to 40%, will be seen as an acceptable risk and scored accordingly.
7.	Refer to qualitative technical criteria number 3.4.1.7 – Material Specification Compliance – Resilience/ rebound. The risk of the proposed seal material having a resilience (or rebound) of 35% to 40%, will be seen as an acceptable risk and scored accordingly.
8.	Refer to qualitative technical criteria number 3.4.1.8 – Material Specification Compliance – Abrasion resistance. The risk of the proposed seal material having an abrasion resistance of 170 to 200 (according to the NBS index), will be seen as an acceptable risk and scored accordingly.
9.	Refer to qualitative technical criteria number 3.4.2 – Dimensional Specification Compliance. This acceptable risk description is applicable for items 3.4.2.1 to 3.4.2.7. The risk of the <i>Supplier</i> submitting high-level seal design drawings which are in line with the pressure requirements, but does not indicate the working fluids, will be evaluated by the <i>Employer</i> , which may result in the risk being accepted by the <i>Employer</i> .

10.	<p>Refer to qualitative technical criteria number 3.4.2 – Dimensional Specification Compliance.</p> <p>This acceptable risk description is applicable for items 3.4.2.1 to 3.4.2.7.</p> <p>The risk of the <i>Supplier</i> submitting high-level seal design drawings which are not in line with the pressure requirements, but does indicate the working fluids, will be evaluated by the <i>Employer</i>, which may result in the risk being accepted by the <i>Employer</i>.</p>
11.	<p>Refer to qualitative technical criteria number 3.4.4 – Draft Measurement Check Sheets.</p> <p>The risk of the <i>Supplier</i> submitting seal check sheets which are not exactly in line with the specifications, will be analysed by the <i>Employer</i> for acceptance. This may result in the risk being accepted by the <i>Employer</i>.</p>
12.	<p>Refer to qualitative technical criteria number 3.4.5.1 – Proof of similar services provided.</p> <p>The <i>Supplier</i> supplies a list of services provided, similar to supplying of the polyurethane components as listed in Table 1 and detailed in Technical Specification (doc. 31A/11111-P2-A), as evidence. The similar services provided should cover at least 60% of the specified dimensions of the items as listed in Table 1. It will be an acceptable risk if the proof of previous polyurethane seals supplied has sizes of between 60% and 80% of the specified dimensions of the items as listed in Table 1.</p>
13.	<p>Refer to qualitative technical criteria number 3.4.6.1 – Detailed quality control plan.</p> <p>The risk if the <i>Supplier</i> submit a basic QCP (Quality Control Plan) including the high-level scope of work as described in the Technical Specification (doc. 31A/11111-P2-A) will be deemed as an acceptable risk and scored accordingly.</p>
14.	<p>Refer to qualitative technical criteria number 3.4.7 – Lead time.</p> <p>It will be an acceptable technical risk if the <i>Supplier</i> provides written confirmation of the different batches to the <i>Employer</i> for acceptance with the following lead times:</p> <ul style="list-style-type: none"> <li>• Batch 1 lead time = 2 to 3 months</li> <li>• Batch 2 lead time = 3 to 4 months (from confirmation of possible design review change as discussed in the Batch 2 definition)</li> </ul>

**Table 10: Unacceptable Technical Risks (Scoring 2 out of 5)**

<b>Risk</b>	<b>Description</b>
1.	<p>Refer to qualitative technical criteria number 3.4.1.1 – Material Specification Compliance – Temperature Range.</p> <p>The risk of the proposed seal material withstanding a minimum temperature of 0°C and a maximum of only 20°C, will be seen as an unacceptable risk and scored accordingly.</p>
2.	<p>Refer to qualitative technical criteria number 3.4.1.2 – Material Specification Compliance – Shore hardness.</p> <p>The risk of the proposed seal material having a shore hardness of between 83 and 85 (Durometer A) or between 93 and 95 (Durometer A), will be seen as an unacceptable risk and scored accordingly.</p>
3.	<p>Refer to qualitative technical criteria number 3.4.1.4 – Material Specification Compliance – Tensile strength.</p> <p>The risk of the proposed seal material having a tensile strength of 20 to 25MPa, will be seen as an unacceptable risk and scored accordingly.</p>

4.	Refer to qualitative technical criteria number 3.4.1.5 – Material Specification Compliance – Elongation at break. The risk of the proposed seal material having an elongation at break of 300% to 350%, will be seen as an unacceptable risk and scored accordingly.
5.	Refer to qualitative technical criteria number 3.4.1.6 – Material Specification Compliance – Compression set. The risk of the proposed seal material having a compression set of 40% to 55%, will be seen as an unacceptable risk and scored accordingly. This is subject to a different design, which the <i>Employer</i> reviews for acceptance.
6.	Refer to qualitative technical criteria number 3.4.1.7 – Material Specification Compliance – Resilience/ rebound. The risk of the proposed seal material having a resilience (or rebound) of 30% to 35%, will be seen as an unacceptable risk and scored accordingly.
7.	Refer to qualitative technical criteria number 3.4.1.8 – Material Specification Compliance – Abrasion resistance. The risk of the proposed seal material having an abrasion resistance of 150 to 170 (according to the NBS index), will be seen as an unacceptable risk and scored accordingly.
8.	Refer to qualitative technical criteria number 3.4.2 – Dimensional Specification Compliance. This unacceptable risk description is applicable for items 3.4.2.1 to 3.4.2.7. The risk of the <i>Supplier</i> submitting high-level seal design drawings which are in line with the pressure requirements, but does not indicate the working fluids, will be evaluated by the <i>Employer</i> , which may result in the risk being not accepted by the <i>Employer</i> .
9.	Refer to qualitative technical criteria number 3.4.2 – Dimensional Specification Compliance. This acceptable risk description is applicable for items 3.4.2.1 to 3.4.2.7. The risk of the <i>Supplier</i> submitting high-level seal design drawings which are not in line with the pressure requirements, but does indicate the working fluids, will be evaluated by the <i>Employer</i> , which may result in the risk being not accepted by the <i>Employer</i> .
10.	Refer to qualitative technical criteria number 3.4.4 – Draft Measurement Check Sheets. The risk of the <i>Supplier</i> submitting seal check sheets which are not exactly in line with the specifications, will be analysed by the <i>Employer</i> for acceptance. This may result in the risk being not accepted by the <i>Employer</i> .
11.	Refer to qualitative technical criteria number 3.4.5.1 – Proof of similar services provided. The <i>Supplier</i> supplies a list of services provided, similar to supplying of the polyurethane components as listed in Table 1 and detailed in Technical Specification (doc. 31A/11111-P2-A), as evidence. The similar services provided should cover at least 40% of the specified dimensions of the items as listed in Table 1. It will be an unacceptable risk if the proof of previous polyurethane seals supplied has sizes of between 40% and 60% of the specified dimensions of the items as listed in Table 1.
12.	Refer to qualitative technical criteria number 3.4.6.1 – Detailed quality control plan The risk if the <i>Supplier</i> submits a QCP (Quality Control Plan) with a completely different scope of work will be seen as an unacceptable risk. The submitted QCP will be analysed by the <i>Employer</i> for acceptance. This may result in the risk being not accepted or deemed as a non-responsive by the <i>Employer</i> .

13.	<p>Refer to qualitative technical criteria number 3.4.7 – Lead time.</p> <p>It will be an unacceptable technical risk if the <i>Supplier</i> provides written confirmation of the different batches to the <i>Employer</i> for acceptance with the following lead times:</p> <ul style="list-style-type: none"> <li>• Batch 1 lead time = 3 to 4 months</li> <li>• Batch 2 lead time = 4 to 5 months (from confirmation of possible design review change as discussed in the Batch 2 definition)</li> </ul>
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### 3.6.2 Exceptions / Conditions

**Table 11: Acceptable Technical Exceptions / Conditions (Scoring 4 out of 5)**

Risk	Description
1.	<p>Refer to qualitative technical criteria number 3.4.2 – Dimensional Specification Compliance.</p> <p>This acceptable exception description is applicable for items 3.4.2.1 to 3.4.2.7.</p> <p>The exception of the <i>Supplier</i> submitting high-level seal design drawings excluding one of the four requirements as stated below will be deemed acceptable.</p> <ol style="list-style-type: none"> <li>i. Seal groove dimension.</li> <li>ii. Sealing surface dimension.</li> <li>iii. High-level seal dimensions.</li> <li>iv. Lip interference dimensions.</li> </ol>
2.	<p>Refer to qualitative technical criteria number 3.4.3 – Design Pressure Confirmation.</p> <p>The exception of the <i>Supplier</i> providing the maximum pressure only as above 72 bar and not the minimum pressure requirement of 1 bar, will be evaluated by the <i>Employer</i> which may result in the exception being accepted by the <i>Employer</i>.</p>
3.	<p>Refer to qualitative technical criteria number 3.4.4 – Draft Measurement Check Sheets.</p> <p>Should the <i>Supplier</i> submit seal check sheets for only five or six of the total seven seals (excluding one or two seal check sheets), this exception will be considered as acceptable by the <i>Employer</i>. Take note that the five or six check sheets will be reviewed for acceptance by the <i>Employer</i>.</p>
4.	<p>Refer to qualitative technical criteria number 3.4.4 – Draft Measurement Check Sheets.</p> <p>Should the <i>Supplier</i> submit seal check sheets with partial information, this exception will be reviewed by the <i>Employer</i> for acceptance. This may result in the exception being accepted by the <i>Employer</i>.</p>
5.	<p>Refer to qualitative technical criteria number 3.4.5.2 – Capabilities.</p> <p>The <i>Supplier</i> provides a company profile indicating their capabilities to be able to perform the scope, without providing photos of their workshop. The company profile will be reviewed for acceptance by the <i>Employer</i>. This may result in the exception being accepted by the <i>Employer</i>.</p>

6.	<p>Refer to qualitative technical criteria number 3.4.5.2 – Capabilities.</p> <p>The <i>Supplier</i> provides photos of their workshop indicating their capabilities to be able to perform the scope but excludes a company profile.</p> <p>The photos of the <i>Supplier's</i> workshop will be reviewed for acceptance by the <i>Employer</i>. This may result in the exception being accepted by the <i>Employer</i>.</p>
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**Table 12: Unacceptable Technical Exceptions / Conditions (Scoring 2 out of 5)**

Risk	Description
1.	<p>Refer to qualitative technical criteria number 3.4.2 – Dimensional Specification Compliance.</p> <p>This unacceptable exception description is applicable for items 3.4.2.1 to 3.4.2.7.</p> <p>The exception of the <i>Supplier</i> submitting high-level seal design drawings excluding two of the four requirements as stated below will be deemed unacceptable.</p> <ul style="list-style-type: none"> <li>i. Seal groove dimension.</li> <li>ii. Sealing surface dimension.</li> <li>iii. High-level seal dimensions.</li> <li>iv. Lip interference dimensions.</li> </ul>
2.	<p>Refer to qualitative technical criteria number 3.4.3 – Design Pressure Confirmation.</p> <p>The exception of the <i>Supplier</i> providing the maximum pressure only as above 72 bar and not the minimum pressure requirement of 1 bar, will be evaluated by the <i>Employer</i> which may result in the exception being not accepted by the <i>Employer</i>.</p>
3.	<p>Refer to qualitative technical criteria number 3.4.4 – Draft Measurement Check Sheets.</p> <p>Should the <i>Supplier</i> submit seal check sheets for only two to four of the total seven seals (excluding three to five seal check sheets), this exception will be considered as unacceptable by the <i>Employer</i>. Take note that the two to four check sheets will be reviewed for acceptance by the <i>Employer</i>.</p>
4.	<p>Refer to qualitative technical criteria number 3.4.4 – Draft Measurement Check Sheets.</p> <p>Should the <i>Supplier</i> submit seal check sheets with partial information, this exception will be reviewed by the <i>Employer</i> for acceptance. This may result in the exception being not accepted by the <i>Employer</i>.</p>
5.	<p>Refer to qualitative technical criteria number 3.4.5.2 – Capabilities.</p> <p>The <i>Supplier</i> provides a company profile indicating their capabilities to be able to perform the scope, without providing photos of their workshop.</p> <p>The company profile will be reviewed for acceptance by the <i>Employer</i>. This may result in the exception being not accepted by the <i>Employer</i>.</p>
6.	<p>Refer to qualitative technical criteria number 3.4.5.2 – Capabilities.</p> <p>The <i>Supplier</i> provides photos of their workshop indicating their capabilities to be able to perform the scope but excludes a company profile.</p> <p>The photos of the <i>Supplier's</i> workshop will be reviewed for acceptance by the <i>Employer</i>. This may result in the exception being not accepted by the <i>Employer</i>.</p>

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