

PRODUCTION TECHNICAL EVALUATION

Compiled by: **M Engelbrecht** *M Engelbrecht*

PART A		Weight
General Aspects:		
1	Is the tenderer a registered company with a core business of supplying fire, rescue and emergency services PPE and specialised equipment to Emergency Services?	7,5
2	Has the tenderer provided similar emergency services PPE and equipment elsewhere within Eskom or Industrial Fire Service in the past four (4) years?	7,5
Score for General Aspects:		15

PART B		Weight
Technical Aspects:		
Score criteria 1 Nothing / Very Poor 5 Comprehensive / Very Good		
Technical Aspects: (I) STRUCTURAL FIRE PPE		
3	Does the bunker suits; fire gloves; fire boots and flash hoods comply with the NFPA, ASTM & CSA certification in the technical specifications document? (documented proof submitted?) 1) Bunker suits: NFPA 1971:2018; 2) Fire gloves: NFPA 1971:2018 ; ASTM F903 3) Fire boots: NFPA 1971:2018 / CSA Z195-14 "Green Fir Tree" chainsaw protection ; 4) Flash hood: NFPA 1971:2018 / Comprising: • 93% Nomex, • 5% Kevlar, • 2% Anti-Static (Knitted 1 x 1 Rib).	5
4	Does the bunker suits' OUTER SHELL meet the minimum specifications as stated in the Kendal Technical Specifications document especially with regard to but not limited to: 1) Outer shell material of 225gsm - Comfort (Twill) - 67% Para Aramid/33% Meta-Aramid. 2) Only yarns guaranteed by the manufacturer to 360°C and SABS /NFPA used in manufacture of suits. 3) Thermal Protective Performance (TPP) of not less than 43 cal/cm ² on the composite of the material on offer. 4) Seam strength to be at least 200 N 5) Incorporate a Drag rescue Device (DRD)	5
5	Does the bunker suits' MOISTURE BARRIER meet the minimum specifications as stated in the Kendal Technical Specifications document especially with regard to but not limited to: 1) Nomex IIIA woven substrate laminated to a breathable membrane. 2) The fabric shall have NFPA 1971-2018 approval for: • Flame resistance, • Heat resistance, • Water resistance, • Liquid resistance, • Viral resistance (Bacteriophage) Strength.	5
6	Does the bunker suits' THERMAL BARRIER & LINING meet the minimum specifications as stated in the Kendal Technical Specifications document especially with regard to but not limited to: 1) Thermal barrier – 50% Aramid & 50% Viscose FR Face Cloth quilted to two (2) layers of needle punched 80% Aramid & 20% Meta Aramid Batting. 2) The fabric shall have NFPA 1971-2018 approval for: • Flame Resistance, • Heat resistance, • Thermal resistance, • Cleaning shrinkage, Strength & Tearing Resistance.	5
7	Does the fire boot meet the minimum specifications as stated in the Kendal Technical Specifications document especially with regard to but not limited to: 1) CSA Z195-14 "Green Fir Tree" chainsaw protection - Chainsaw Protection (Highest Class 3 (28m/sec chainsaw speed as per EN ISO 17249:2013)). 2) CSA Omega - Electric shock resistant 18kV. 3) Feature a Viking NJV outsole which is abrasion, chemical and slip-resistant chloroprene rubber.	5
8	Does the fire glove meet the minimum specifications as stated in the Kendal Technical Specifications document especially with regard to but not limited to: 1) Flame Resistant and Waterproof. 2) Resistant to Viral and Blood Borne Pathogens as well as Industrial Chemicals in Accordance with ASTM F903. 3) Eight (8) layer knuckle guard system featuring 100% Kevlar® fused with silicone carbide. 4) Palm Layers Stitched Down with High-Burst Kevlar® Thread to Strengthen Grip. 5) Flexible Finger Sidewalls of Kevlar® and Nomex® Maximize Dexterity.	5
9	Does the fire flash hood meet the minimum specifications as stated in the Kendal Technical Specifications document especially with regard to but not limited to: 1) 93% Nomex; 2) 5% Kevlar; 3) 2% Anti-Static (Knitted 1 x 1 Rib). 4) Weight: 240 g/m ² (single layer); 5) Thread: 100% Nomex (Blue). 6) Overall Length: 21"	5
Score for Technical Aspects Part B (I):		35

			Weight
		Technical Aspects: (II) FIRE HELMET	
7	Does the fire helmet comply with the minimum Certifications & Approvals as stated in the Kendal Technical Specifications document especially with regard to but not limited to: 1) Helmet: EN443:2008 2) Face Shield: EN14458 3) Ocular Visor: EN14458 4) Neck Curtain: EN443:2008 – Area 3a		5
8	Does the fire helmet conform to the Jet Style type incorporating both a face shield and ocular visor as per the Kendal Technical Specifications document?		5
9	Does the fire helmet construction consist of: 1) Impact liner material manufactured of shock absorbing polyethane foam with moulded aramide reinforcement, 2) Three point, adjustable chinstrap with release buckle 3) Interior of flame resistant, padded headband and chinstrap covers made of Nomex material.		5
10	Is the fire helmets capable of integrating Communication and Hearing protection without impacting the user's safety during fire fighting activities? Example is melting of components due to heat exposure causing thermal burns to the user. Or fire helmets fit and/or position on head is compromised resulting in poor level of protection against operational hazards.		5
Score for Technical Aspects Part B (II):			20

			Weight
		Technical Aspects: (III) INTEGRATED COMMUNICATION & HEARING PROTECTION	
7	Does the integrated communication system comply with the minimum Certifications & Approvals as stated in the Kendal Technical Specifications document especially with regard to but not limited to: 1) Headset : ATEX level: II 2G Ex ib IIC T4 / Fully watertight equivalent to IP67 2) Flexible Microphone: Ingress Protection - IP56 (tested inside helmet) 3) Hearing protection: 3.1) Noise Reduction: SNR values of 26 dB / H=26 / M=23 / L=18 3.2) ATEX level: II 2G Ex ib IIC T4		5
8	Does the integrated communication and hearing protection system meet the following criteria: 1) Active Hearing Protection headset with built-in communication capabilities. 2) Two (2) ear muffs with padding and noise attenuation foam. <u>Specification:</u> Cup Material of PC/ABS and Cushion of Synthetic leather 3) Ear cup height adjustment system for optimal wearing position. 4) Flexible microphone attached to the left muff. <u>Specification:</u> Microphone with noise cancelling electret, 100Hz-10kHz, sensitivity -61 dB (nominal) at 50% humidity.		5
9	Is the integrated communication & hearing protection system capable of integration with a Push-to-Talk (PTT) module enabling connection to the PMR radio through ATEX certified LEMO plug connection?		5
Score for Technical Aspects Part B (III):			15

			Weight
		Technical Aspects: (IV) PUSH-TO-TALK (PTT) COMMUNICATION MODULE	
7	Does the PTT communications module comply with the minimum Certifications & Approvals as stated in the Kendal Technical Specifications document especially with regard to but not limited to: 1) ATEX level: II 2G Ex ib IIC T4 Gb 2) EMC performance: ESD/EMI: 10 V/m		5
8	Does the PTT module specifications meet the minimum specifications as follows: 1) Amplifier with adjustable gain (0-26 dB) and bandwidth 300Hz-3kHz 2) Nominal output: 50mV RMS and harmonic distortion 5%. 3) Housing Material of High Temperature Thermoplastic (PA). 4) Operation Temperature: -20°C to +65°C, humidity < 98%		5
9	Does the communication system comprise of a PTT communication module incorporating a LEMO anti-tearing plug with ATEX certified (green) connector for the flexible microphone headset?		5
Score for Technical Aspects Part B (IV):			15

PART C	
SPECIFIC WORKS INFORMATION REQUIREMENTS	Weight
<p>Final Technical Evaluation Score: Average score of General and Technical Aspects Note: If the final score of the Tender is below 75% the Tender will be considered technically unacceptable</p>	100

Notes on Scored Criteria:

1	<i>Tenderer to submit Company profile detailing services and business sector the company operates in.</i>
2	<i>Tenderer to submit documented proof of Eskom business units to whom they have supplied emergency fire; rescue and/or hazmat PPE and/or equipment in the last four (4) years.</i>
3	<i>Tenderer to submit documented proof of at least five (5) companies to whom they have supplied emergency fire; rescue and/or hazmat PPE and/or equipment in the last three (3) years.</i>
4	<i>Tenderer to submit documented proof of proposed PPE and equipment specifications on offer, these to include:</i>
4.1	<i>Material and Product Certification to standards specified in the Kendal ERT Personal Protective Equipment (PPE) Specifications document (i.e. EN Standards; ATEX Standards; NFPA; etc.).</i>
4.2	<i>Original Equipment Manufacturer (OEM) published product brochures and technical specifications for each item quoted for.</i>
4.3	<i>Original Equipment Manufacturer (OEM) published product user manual and maintenance guides for each item quote for.</i>
4.4	<i>Original Equipment Manufacturer (OEM) published product spares list for fire helmet, communications and hearing protection equipment components for products quotes for.</i>
5	<i>The supplier must be an authorised distributor and / service agent of the OEM products to ensure warranties are in effect; and after-sales service and maintenance can provided by the tenderer.</i>