MEDUPI POWER STATION

WORKS INFORMATION

The *works* consist of providing Conveyor Repairs and Maintenance services required for the efficient running of the Medupi Conveyor belt for the period of 3 years at Medupi Power Station.

WORKS INFORMATION

EMPLOYER's *OBJECTIVE:*

The Employer's objectives are to**:**

- Obtain Contractors to do Conveyor Belt Repairs and Maintenance services for Coal and Ash plant at Medupi Power Station.
- Control the risk associated with conveyor failures within the Coal and Ash conveying Operations.

Section 1	**Description of the *works***
Section 2	**Work to be performed by the *Contractor* for the *works***
Section 3	**Work and things for the works supplied by the *Employer***
Section 4	**Programme and planning**
Section 5	**Completion**
Section 6	**Site features requiring special attention**
Section 7	**Quality management**
Section 8	**Safety management**
Section 9	**Environmental management**
Section 10	**Site services and procedures**
Section 11	**Restrictions applicable to the *Contractor***
Section 12	**Accounts and records**
Section 13	**Drawings**

Section 1: Description of the works

The works is for Conveyor Belt Maintenance, Conveyor Belt Splicing, Pulley re-lagging, Pulley lagging replacement, Conveyor Belt Repair, Conveyor Belt replacement, Conveyor belt fasteners, Vulcanising, Scrapper maintenance, Scrapper repairs, Scrapper replacement on the Coal and Ash Plant of Medupi Power Station.
The *contractor* shall have a dedicated team available on site that will be responsible for conveyor belt maintenance as stipulated on the above paragraph.
The contractor will also be required to do conveyor belt and pulley lagging inspection and assist with idler replacements when they are not splicing belts or re-lagging pulleys.
The *Contractor* is required to supply all material, equipment and labour required to execute belt maintenance, splicing and pulley lagging on the conveyors.
The *Contractor* will be required to have splicing equipment dedicated for Medupi to ensure that if Medupi experiences splice failures that equipment is available immediately for the repair work to start.

1.1 BOUNDARY DEFINITIONS

Coal Conveying Plant

Boundary Start: 10 000 ton Coal Silo Feeders
Boundary End: Mill Bin Conveyors.

Ash Conveying Plant

Boundary Start: Coarse Ash Conveyors
Boundary End: Ash Stacker Boom Conveyor.

Section 2: Work to be performed by the *Contractor* for the *works*

2.1 Works

1. Providing a 24 hour Belt maintenance, Conveyor Belt Splicing, Pulley re-lagging, Pulley lagging replacement, Conveyor Belt Repair, Conveyor Belt replacement, Conveyor belt fasteners, Vulcanising, Scrapper maintenance, Scrapper repairs and Scrapper replacement services to ensure the efficient running of the Medupi Power Station Conveying Operations without interruptions.
2. Provide a dedicated Medupi team consisting of:
    - Two (2) Supervisors
    - Four (4) Team Leaders
    - Ten (10) scrapper assistants

3. Team responsibilities:
    - Day to day inspection of conveyor belting, splices, Idlers and pulley lagging.
    - Assist with idler changing as and when required.
4. Ensure that the Staff and Equipment meets the safety, health and environmental regulations and requirements at all times.
5. The *Contractor* provides Equipment, tools and consumables for the effective operation of the *Works*

2.2.1 Splicing and Belt Repairs

1. On call out, the *Contractor* Supervisor shall be on site within 60 minutes, after being called out for assessment of work and planning.

2. All splices on Steel Cord and Plied Textile belts shall be done using a hot vulcanizing press, unless otherwise agreed with the *Employer*.
3. The *Contractor* will be responsible to supply their own equipment, required to do splicing and belt repairs, inclusive of Humidity meters and Shore hardness testers.
4. All equipment to do splicing and belt repairs should be supplied by the *contractor*, including at least four 1.5-ton Lever Hoists and belt clamps for the belt sizes used at Medupi. This will include a small generator for handheld electrical tools used in remote areas and all lighting equipment.
5. Steel cord belt splicing should comply with SANS 485 'Conveyor belting - Splicing of steel cord reinforced conveyor belting', 2009 edition.
6. Hot splicing of textile reinforced conveyor belt splicing should comply with SANS 484 part 1:' Conveyor belting - Step splicing for multi-ply textile-reinforced rubber covered conveyor belting Part 1: Hot-splicing method', 2009 edition
7. Medupi's Quality control plan (QCP) on conveyor belt splicing (F/E****/001) should be completed during splicing. Payment will only be done once the fully completed QCP is submitted to the relevant ESKOM personnel.
8. All hot and cold repairs need to be given an unique identity number indicating the date and company name and a Quality control plan (QCP) for conveyor belt repairs should be completed during repairs as well.
9. Splicing equipment should be verified, calibrated and tested at intervals indicated in Table 1 below, unless written exemption is granted by the *Employer*. A copy of the calibration report from the press manufacturer or company approved by the manufacturer should be submitted to the *Employers representative* every 6 months, after which payment will be approved for that activity.
10. Proof of thermocouple and pressure gauge verification done monthly should be submitted to the *employer's representative* on a monthly basis.
11. The *contractor* to have at least one person authorized to operate overhead hoists and cranes for the lifting splicing equipment when and where required within three months of the contract been awarded.
12. During adverse weather conditions such as rain and wind the *contractor* is to erect a shelter over the splice or repair area to keep out the elements.
13. Eskom personnel will monitor the splicing process, using instrumentation, to verify actual conditions if so desired
14. The contractor is required to prepare H-Block samples during every 10th steel cord splice as per par 8.3 of SANS 485 2009, to enable Medupi to conduct cord pull out tests.
15. The *contractor* will not be paid for rework or any splice that fails within the guarantee period.
16. As per the SANS requirement the contractor will have to provide proof from the belt manufacturer that the compound that the contractor is using for belt splicing is compatible with the brand of belt that is being spliced. Medupi currently uses Dunlop, Continental (Goodyear) Fenner and Interflex belting.

ITEM	ACTIVITY	INTERVAL
Thermocouple gauges	Verification with calibrated thermocouple	Monthly
Pressure gauges	Verification with calibrated gauge	Monthly
Control box wiring inspection	Inspection by splicing contractor	Weekly
Platen element test	Test by press manufacturer	6 Monthly
Thermocouple gauges	Verification by press manufacturer	6 Monthly
Cylinders/pressure bags	Pressure test, check for leak and condition by press manufacturer	6 Monthly
Control box wiring tests	Correct functioning and safety by press manufacturer	6 Monthly

Hardness meter (durometer)	Verification/Calibration	6 Monthly
Humidity meter	Verification/Calibration	6 Monthly

Table 1: Verification and testing requirements for splicing equipment

Note: If the utilization of the press and other equipment was low after the last calibration or function test, the *Contractor* can request the *Employer* to be exempt the *Contractor* from the 6 monthly calibrations or function testing.

2.2.2 Pulley Lagging

1. The *Contractor* will be responsible to supply their own equipment and material required to do lagging of pulleys
2. All equipment to do pulley lagging should be supplied by the *contractor*, including at least four 1.5 ton Lever Hoists and spreader bars.
3. *Contractor* will be responsible to pull the belt away from the pulleys using their own equipment during the lagging process.
4. Medupi will only be responsible for de-tensioning of the belt
5. The Rubber lagging should consist of one continuous sheet and only the joint where the two ends of the lagging sheet meet, will be allowed. No joining of 'pieces' will be allowed on the pulley.
6. The *Contractor* should provide Quality Control (QC) documentation for each pulley that is lagged.
7. Medupi has ceramic lagging imbedded in rubber on most of the drive pulleys and lagging of these pulleys will be required from time to time. This lagging should consist of continuous strips of lagging across the full width of the pulley

2.3 Costs and Guarantees

2.3.1 Fixed Monthly Cost

2.3.2 Labour Cost

It is assumed that normal overtime rate will be at 1.5 times normal rate and Sundays and public holidays will be at 2 times normal rate.

Note: Travelling, accommodation and health and safety cost as per Section 8 must be included in the prices for all of the items above.

2.3.3 Guarantee Period

Belt s (steel)	**Guarantee period**	**Belt s (canvas)**	**Guarantee period**
New/new steelcord		New/new Canvas	
New/old ST(New < 3 years)		New/old (New < 3 years)	
Old/Old ST(>3 years)		Old/Old (>3 years)	
Pulley lagging (workmanship)			

2.3.4 Other Costs

Eskom will use the estimate quantities, cost per item, Site establishment cost and once of health and safety file cost to determine the total contract value over the period. The *contractor* is therefore not required to quote a total contract price.

2.3.5 Splicing Cost Including Labour

Please note that Splicing, belt repairs and pulley lagging cost quoted here should include material and all other related cost including labour.

2.3.6 Belt Repair Material Cost

Repair Type	Units	Cost Excl VAT	VAT	Cost Incl. VAT
Hot repair	m^2			
Cold repair patch	m			
Cold repair 'rubber' compound	Per set off tubes			

2.3.7 Lagging Material cost

2.3.7.1 Ash Conveyors

Pulley Descriptions	Diameter [mm]	Face width [mm]	Surface area [m^2]	Lagging type	Lagging Thickness [mm]	Price per pulley Excl. VAT	VAT	Price per pulley Excl. VAT
Coarse Ash Conveyors, Conveyor Tail, Bend, Bend and Take-up Pulleys	500	1350	2.12	Rubber	10			
Coarse Ash Conveyors, Head/Drive Pulley	630	1350	2.67	Ceramic	12			
Coarse Ash Conveyors, Snub pulley	405	1350	1.72	Rubber	10			
Transverse Ash Conveyors, Conveyor Tail Pulley & Take-up pulley	500	1350	2.12	Rubber	10			
Transverse Ash Conveyors, Conveyor Head Pulley, High tension Bend pulley, High tension Bend Pulley & Drive Snub Pulley	630	1350	2.67	Rubber	10			
Transverse Ash Conveyors, Conveyor Drive Pulley	630	1350	2.67	Ceramic	12			
Transverse Ash Conveyors, Conveyor Low Tension Bend Pulley & Low Tension Bend Pulley	500	1350	2.12	Rubber	10			
Ash Overland Link Conveyors, Conveyor Tail Pulley, Take-Up pulley, Take-up bend Pulley	500	1700	2.67	Rubber	10			
Ash Overland Link Conveyors, Conveyor Head Pulley & High Tension Bent Pulley	710	1700	3.79	Rubber	10			

Pulley Descriptions	Diameter [mm]	Face width [mm]	Surface area [m^2]	Lagging type	Lagging Thickness [mm]	Price per pulley Excl. VAT	VAT	Price per pulley Excl. VAT
Ash Overland Link Conveyors, Conveyor Drive Pulley	630	1700	3.36	ceramic				
Ash Overland Link Conveyors, Conveyor Turnover Bend Pulley	219	2000	1.38	Rubber	6 Plain			
Emergency Ash Stacking Conveyor, Tail, snub, take -up, and take-up bent pulleys	500	1700	2.67	Rubber	10			
Emergency Ash Stacking Conveyor, Tripper Car Head Pulley and conveyor Head pulley	710	1700	3.79	Rubber	10			
Emergency Ash Stacking Conveyor, Tripper Car Bent and High Tension Bent Pulley	630	1700	3.36	Rubber	10			
Emergency Ash Stacking Conveyor, Conveyor Drive Pulley	630	1700	3.36	Ceramic	12			
Emergency Ash Stacker, Boom Drive Pulley	630	1700	3.36	Ceramic	12			
Emergency Ash Stacker, Boom Head Pulley	500	1700	2.67	Rubber	10			
Emergency Ash reclaim Conveyor, Tail, Take-up and Take-up bend pulleys	500	1350	2.12	Rubber	10			
Emergency Ash reclaim Conveyor, Head/Drive Pulley	630	1350	2.67	Ceramic	12			
Emergency Ash reclaim Conveyor, Snub Pulley	400	1350	1.70	Rubber	10			
Emergency Ash reclaim Conveyor, Take-up bend pulleys	500	1350	2.12	Rubber	10			

Pulley Descriptions	Diameter [mm]	Face width [mm]	Surface area [m^2]	Lagging type	Lagging Thickness [mm]	Price per pulley Excl. VAT	VAT	Price per pulley Excl. VAT
Overland Conveyor, Head, HT Snub and Drive snub pulleys	800	1700	4.27	Rubber	10			
Overland Conveyor, High Tension 1 and 2 Pulley	1200	1700	6.41	Rubber	10			
Overland Conveyor, Drive Pulley	800	1700	4.27	Ceramic	12			
Overland Conveyor Take-up Pulley	630	1700	3.36					
Overland Conveyor Take-up bend 1 to 4 Pulleys	630	1700	3.36	Rubber	10			
Overland Conveyor Tail Pulley	800	1700	4.27	Rubber	10			
Extendable Conveyor, Head, High tension Bend 1 and Primary and Secondary drive snub Pulleys	1000	1700	5.34	Rubber	10			
Extendable Conveyor, Primary and Secondary drive Pulleys	1000	1700	5.34	Ceramic	12			
Extendable Conveyor, Take-up, Take-up bend 1 to 4 and Tail Pulleys	630	1700	3.36	Rubber	10			
Shiftable Conveyor, Drive Pulley	800	1700	4.27	Ceramic	12			
Shiftable Conveyor, Drive Pulley	800	1700	4.27	Rubber	10			
Ash Stacker Tripper car, Discharge and take-up Pulleys	630	1700	3.36	Rubber	10			

Pulley Descriptions	Diameter [mm]	Face width [mm]	Surface area [m^2]	Lagging type	Lagging Thickness [mm]	Price per pulley Excl. VAT	VAT	Price per pulley Excl. VAT
Ash Stacker Tripper car, snub Pulley	500	1700	2.67	Rubber	10			
Ash Stacker Link and Boom Conveyor Drive Pulleys	630	1700	3.36	Rubber	10			
Ash Stacker Link and Boom Conveyor Head Pulleys	500	1700	2.67	Rubber	10			

2.3.7.2 Coal Conveyors

Belt	Pulley	Diameter [mm]	Face width [mm]	Surface Area [m^2]	Lagging Type	Thickness	Price per pulley Excl. VAT	VAT	Price per pulley Excl. VAT
US1A&B	Drive	1000	2600	8.17	Ceramic	8			
	Tail/take-up	1000	2600	8.17	Rubber	10			
OV1	Primary Drive	1000	2300	7.23	Ceramic	10			
	H.T Bend	1000	2300	7.23	Rubber	10			
	Secondary Drive	1000	2300	7.23	Ceramic	10			
	L.T Take Up/ L.T Bend	800	2300	5.78	Rubber	10			
	Tail	800	2300	5.78	Rubber	10			
OV2	Drive	800	2300	5.78	Ceramic	10			
	H.T Bend	800	2300	5.78	Rubber	10			
	L.T Bend/ L.T Take Up/ Tal	630	2300	4.55	Rubber	10			
	H.T Pulley/ Head Pulley	800	2300	5.78	Rubber	10			

Belt	Pulley	Diameter [mm]	Face width [mm]	Surface Area [m^2]	Lagging Type	Thickness	Price per pulley Excl. VAT	VAT	Price per pulley Excl. VAT
SY1	Tail	800	2300	5.78	Rubber	10			
	Drive	800	2300	5.78	Ceramic	6			
	L.T Bend	500	2300	3.61	Rubber	10			
	H.T Bend	630	2300	4.55	Rubber	10			
SYS1&2	Tail	800	2300	5.78	Rubber	10			
	Head	1000	2300	7.23	Rubber	10			
	H.T Bend	800	2300	5.78	Rubber	10			
	Drive	1000	2300	7.23	Ceramic	6			
	Take-Up	630	2300	4.55	Rubber	10			
	L.T Bend	500	2300	3.61	Rubber	10			
SYR1&2	Tail	800	2000	5.03	Rubber	10			
	Head	1000	2000	6.28	Rubber	10			
	H.T Bend	800	2000	5.03	Rubber	10			
	Drive	800	2000	5.03	Ceramic	6			
	Take-Up	630	2000	3.96	Rubber	10			
	L.T Bend	500	2000	3.14	Rubber	10			
Reclaimer 1&2 Cross Conveyor	Drive	630	2300	4.55	Ceramic	6			
	Tail/take-up	630	2300	4.55	Rubber	10			
Stacker	Drive	800	2300	5.78	Ceramic	6			

Belt	Pulley	Diameter [mm]	Face width [mm]	Surface Area [m^2]	Lagging Type	Thickness	Price per pulley Excl. VAT	VAT	Price per pulley Excl. VAT
1&2 Intermediate Conveyor	Tail/take-up/LT Bend	630	2300	4.55	Rubber	10			
Stacker 1&2 Boom Conveyor	Drive	800	2000	5.03	Ceramic	6			
	Tail/take-up	800	2000	5.03	Rubber	10			
SY2A&B	Tail	800	2000	5.03	Rubber	10			
	Head	1000	2000	6.28	Rubber	10			
	H.T 180 Bend	800	2000	5.03	Rubber	10			
	H.T 90 Bend	800	2000	5.03	Rubber	10			
	Drive	1000	2000	6.28	Ceramic	6			
	Take-Up	630	2000	3.96	Rubber	10			
	L.T Bend	500	2000	3.14	Rubber	10			
T1A&B	Tail	800	2000	5.03	Rubber	10			
	Drive	800	2000	5.03	Ceramic	6			
	L.T Bend	500	2000	3.14	Rubber	10			
	Take-Up	630	2000	3.96	Rubber	10			
T2A-F	Drive	1000	2000	6.28	Ceramic	12			
	Take-Up	800	2000	5.03	Rubber	10			
T3A-F	Drive	630	1350	2.67	Ceramic	12			

Belt	Pulley	Diameter [mm]	Face width [mm]	Surface Area [m^2]	Lagging Type	Thickness	Price per pulley Excl. VAT	VAT	Price per pulley Excl. VAT
	Head	710	1350	3.01	Rubber	10			
	Head snub	500	1350	2.12	Rubber	10			
	Take-Up bend	500	1350	2.12	Rubber	10			
	H.T snub	630	1350	2.67	Rubber	10			
	Tail	500	1350	2.12	Rubber	10			
	Take-Up	500	1350	2.12	Rubber	10			
	L.T Bend	500	1350	2.12	Rubber	10			
T4A-F	Drive	630	1350	2.67	Ceramic	12			
	Head	630	1350	2.67	Rubber	10			
	HT Snub	630	1350	2.67	Rubber	10			
	Take -Up	500	1350	2.12	Rubber	10			
	Take-Up bend	500	1350	2.12	Rubber	10			
	Tail	500	1350	2.12	Rubber	10			
	L.T bend	500	1350	2.12	Rubber	10			
T5/6A-F	Drive	630	1350	2.67	Ceramic	12			
	Drive snub	406	1350	1.72	Rubber	10			
	Take-Up bend	500	1350	2.12	Rubber	10			
	Tail	500	1350	2.12	Rubber	10			
	Take-up	500	1350	2.12	Rubber	10			

Belt	Pulley	Diameter [mm]	Face width [mm]	Surface Area [m^2]	Lagging Type	Thickness	Price per pulley Excl. VAT	VAT	Price per pulley Excl. VAT
T7/8A-F	Drive	630	1350	2.67	Ceramic	12			
	Tail	630	1350	2.67	Rubber	10			
	Bend	400	1350	1.70	Rubber	10			
	Take-Up	400	1350	1.70	Rubber	10			

2.3.8 Investigation

In the event of a failure of any of the *Contractors* work an investigation will be conducted by the *Employer*, involving the *Contractor*, to determine the root cause and actions required.

2.3.9 Tender Deliverables

The *Contractor* will supply the following information with the tender:

1. Procedure for storage and handling of splicing material (e.g. Rubber, vulcanising cement etc.)
2. A typical Quality Control Plan (QCP) for a steel cord and a textile splice as well as a typical hot repair QCP.
3. A typical Quality Control Plan (QCP) for pulley lagging.
4. A list of recent (5 to 6 years) previous splicing/lagging contracts, value of contract and employer contract manager contact details.
5. CV's of key personnel (Splicer and Supervisor) that will be used at Medupi Power station for the duration of the contract.
6. Splicing materials and brands that will be used for the duration of the contract.

NB Please note that failure to submit the information requested in the above paragraph 2.3.4, will be regarded as an incomplete tender and can lead to disqualification of the tender.

2.3.10 Constraints on how the Contractor Provides the Works

1. Splicing will normally be done in predetermined splicing areas and the belt will be stopped to have the splice in that area.
2. In the event that a conveyor belt has snapped, the Splice will have to be done at the point where it snapped. Eskom will however provide scaffolding in these areas if it is required
3. The splicing working will normally be planned to start during working hours and the contractor will be notified in advance of the plan.
4. On certain conveyors work can only be done over weekends due to production constraints. The contractor is required to take this into consideration. It is expected that 80% of the work will be done during the week and 20% during weekends or callout.
5. The contractor is required to be available for splicing on a 24 hour basis in case of failures.
6. 3 Splicing teams are required to be available during the week.
7. 2 teams are required to be available on standby during weekends and holidays to cover any breakdowns that may occur.
8. Due to production constraints the belt will not always be available at the exact time that is was planned. standing time will be paid if the belt is not made available for splicing on time.
9. Rubber pulley lagging will be done in-site with belt tension relieved.
10. Pulley lagging is normally planned in advance and will normally not be done on an emergency basis.

2.4 General

2.4.1 The *Contractor* provides Contracted Services as instructed by the Project Manager, according to the needs of the Employer.

2.4.2 The Contractor informs the Employer within 24-hours in writing of any safety incident, injuries and/or damage to any property or employees.

2.4.3 The Contractor fulfils his legal obligations to report certain incidents to the Department of Labour, or to keep records in terms of the OHS Act and the compensation for injuries and Diseases Act.

2.4.4 The Contractor ensues that his Equipment is suitable to Provide the Works during inclement weather and provides his employees with protective clothing so that work may be efficiently carried out.
2.4.5 The Contractor informs the Project Manager of intentions to stop work during inclement weather. The Contractor and the Project Manager assess the weather conditions with the intention to prevent the work from being stopped. The Contractor stops the work once the inclement weather causes a safety and health risk to employees exposed to the weather.
2.4.6 The Contractor attends meetings arranged by the Project Manager.
2.4.7 The Contractor completes records and submits these for acceptance to the Project Manager when work is done on site. As a minimum these records contains:

Total people on Site
Total Equipment being used

2.4.8 All communications, including faxes and telexes are addressed as follows:

Attention: The Project Manager or The Contractor (correspondence is not addressed to individuals as such, but may be marked for the attention of the relevant Project Manager or Contractor)
SPL 001 to xxx (From the Contractor's Office. Correspondence is numbered sequentially on the basis of the communication source)

2.4.9 All correspondence headings include:

Medupi Power Station
The contract description
The contract number
The correspondence subject matter (Correspondence is delivered as a single package, with distribution being handled by the Project Manager in his organization or the Contractor in his organization.)

2.5 Equipment

2.5.1 The Contractor shall ensure that.

a. The contractor will be required to have splicing presses for the splicing of smaller belt and larger belt on site for the immediate use at Medupi when required.
b. The Contractor's Equipment supplied and used on the site complies with the Occupational Health and Safety Act, Act 85 of 1993 (as amended).
c. The Contractor provides consumables, spare parts and lubricants required for the maintenance of his Equipment.
d. Splicing, Belt Repair and Pulley Lagging Equipment is maintained to ensure availability of 100%.

2.6 Supervision and personnel

2.6.1 The Contractor lists his supervisor as a key person in the Contract Data.
2.6.2 The Contractor supervisor must have the following qualifications (Grade 12, N6 Mechanical Engineering, Splicing competency certificate).
2.6.3 The Contractor's Supervisor maintains a permanent presence on the site when work is performed. During the abnormal working hours, when the Contractor's supervisor is not

present on site, the contractor ensures that a senior employee, able to act on behalf of his supervisor, is on duty at the site.

2.6.4. The Contractor's prove to the Project Manager that the employees used by the Contractor to provide the works are competent in their areas of responsibility.
2.6.5 The Contractor shall ensure availability of special services for condition monitoring and lab tests for all failures on splices for root cause analysis over 3 years as and when required.
2.6.6 The Contractor provides the Project Manager with proof of legal appointments in terms of the Occupational Health and Safety Act, Act 85 of 1993 (as amended) for all the Contractor's employees who carry such legal responsibilities when on site.
2.6.7 The Contractor does not commence to provide the works unless the required letters of legal appointments have been accepted by the Project Manager.

2.7 Specifications

Title	Date or revision	Tick if publicly available
General Specifications:		
Safety Health Environmental Specifications for *Contractor*s		Medupi
Medupi Power Station - SHE File Evaluation Checklist - 240-97661287	2	Medupi
Medupi Power Station Working at Heights Work Instruction - 240-135676724	1	Medupi
Life Saving-Rules – 240-62196227	6	Medupi
ESKOM SHEQ Policy 32-727	5	Medupi
Environmental Incident Management Procedure - 240-13308711	1	
Medupi Quality control plan – Conveyor Belt splicing		Medupi
Technical specifications:		
SANS 485 'Conveyor belting - Splicing of steel cord reinforced conveyor belting'	2009	Yes
SANS 484 part 1: 'Conveyor belting - Step splicing for multi-ply textile-reinforced rubber covered conveyor belting Part 12: Hot splicing method '	2009	Yes

2.8 Site location and arrangement

The Operating and Maintenance contract is located at Medupi Power Station in the Limpopo Province.

Section 3: Work and Services for the work supplied by the *Employer*

3.1 General

1. The *Employer* provides the labour ,equipment, tools and consumables for the pulling in of conveyor belting for the *Works*.

2. The *Contractor* shall provides 380V for the splicing press by means of a mobile diesel generator in remote areas. The *Contractor* can also use the 380 V and 220 V power supplies where these services are currently available in the plant.
3. The *Employer* provides access to the Site.
4. The *Employer* provides induction training.
5. The *Employer* provides identity permits for access control purposes.
6. The *Employer* provides potable water and sanitary facilities on Site.
7. The *Employer* informs the *Contractor* of any statutory requirements.
8. The *Employer* provides operational requirements.
9. The *Employer* provides the *Contactor* with a matrix to clarify responsibilities and accountabilities at areas of interface with the *Employer* and Others.
10. The *Project Manager* informs the *Contractor* of any changes to the operational requirements when the *Project Manager* becomes aware of the changes.
11. The *Employer* provides all standard format documentation to be used for this contract.
12. The *Employer* provides emergency fire fighting facilities.
13. The *Employer* provides trained Supervisors to oversee Operations on Site.

3.2 Site facilities provided by the *Employer*

3.2.1 Site Yard

1. The *Contractor* is supplied with an off-terrace yard, inside the Power Station security fence, for his use during the full period of his Site works.

2. The *Contractor*'s yard is subject to periodic inspection by the *Employer*.

3. The *Contractor* evacuates and cleans the yard within 1 month from *Completion*.

3.2.2 Supply of electricity

All points of supply requested by the *Contractor* are provided in terms of quantity and location at the discretion of the *Employer*.

3.2.3 Lighting

The *Employer* provides general Plant lighting. All other lighting is the responsibility of the *Contractor*.

3.2.4 Water

The *Employer* supplies reasonable quantities of potable water required for the purposes of this contract free of charge. The *Contractor* provides, at his own cost, all connection fittings, pipe work, temporary plumbing, and pumps necessary to lead the water from the *Employer*'s points of supply to the various points where it is required. The *Contractor* is responsible to maintain this equipment and to remove it on *Completion*.

The *Employer* does not guarantee continuity of supply and the *Contractor* makes his own provision for standby supplies to maintain continuity of work. Claims of any nature relating to discontinuity of water supply are not considered.

3.2.5 Telecommunications

The *Contractor* supplies the necessary phone facilities to enable communication with the *Employer* and workers without any delay.

Section 4: PROGRAMME AND PLANNING

4.1 Minimum programme requirements

1. The *Contractor* develops a programme to show activities for this contract.
2. The programme shows key dates for co-ordination with Others and the *Project Manager*.
3. The *Contractor* numbers each individual activity with a unique number that can be cross-referenced with the a*ctivity schedule* and method statements.

4.2. Computerized planning and reporting

Resource information for manpower, plant and equipment based on the Accepted Programme and reflected in resource histograms are provided.

4.3 Submission of programme

The *Contractor* submits two hard copies and one electronic copy to the *Project Manager* for acceptance.

Section 5: COMPLETION

5.1 Work provided by the *Contractor* by the *Completion Date*

After Completion the *Contractor* submits the documentation for the *works* in accordance with the *Employer's* documentation requirements.

Completion takes place after the *Project Manager* has verified the submitted documents.

Section 6: SITE FEATURES REQUIRING SPECIAL ATTENTION

6.1 Access for and interface with other *Contractors*

Other contractors are working in the same area as the work of this contract. In this regard, the *Contractor* co-ordinates his work with the *Employer* to maintain harmonious working conditions on Site.

During the progress of the *works,* the *Contractor* provides reasonable access to other *Contractor*s to execute works carried out in other contracts.

6.2 Existing structures and services

The *Contractor* exercises the necessary care and skill to ensure adequate protection of all existing works and services, in or adjacent to the *works*, during construction.

6.3 Lay down area

None.

6.4 Site regulations

The *Contractor* complies with the Site Regulations, a copy of which is available for perusal at the *Employer's* offices. All Site Regulations form part of this contract.

6.5 Accommodation

The *Contractor* is responsible for the provision of his own accommodation for all his employees engaged in the execution of the *works*. This includes the needs of his Sub-contractors. The cost for accommodation, as well as for transportation to and from Site is included in the contract price.

1. Section 7: Quality Management

1.1 Quality Control Plan

- The contractor will be responsible to fill in Eskom's Quality control document for Conveyor belt splicing, form. The contractor will be required to fill in his own Quality control document for rubber and ceramic pulley lagging, and belt repairs.
- The Completed QCP needs to be submitted to the Employers representative before any payment will be done.
- Please note that the quality control documents need to be filled in during execution of the splice. Not filling in the QCP during the splice will be seen as a breach of contract and will result in a non conformance register being issued to the contractor.
- All of the test described in the QCP should be done and the correct information filled in the areas provided.
- H-Block sampling will be required with every 10th steel cord splice to enable cord pull out tests to be performed.

7.2 Interpretation of incorporated documentation

Wherever the following words or phrases are used in the listed or referred documentation, they are interpreted in this *contract* as follows.

	Word or phase		**Interpretation**
	'Eskom Holdings' (Escom or Electricity Supply Commission) in the context of: - owner, occupier or user of the new asset - insurer of the *works* - paymaster (i.e. Eskom shall pay) - a party to the contract		the *Employer*
	'Eskom Holdings' in the context of: - a duty or procedure to be performed in the administration of the contract		the *Project Manager* or the *Employer* as determined by the *conditions of contract*
	accepted by (or to the satisfaction of) the *Project Manager*, Engineer or the Architect		accepted by the *Project Manager* or the *Employer*

	Word or phase		Interpretation
	a duty, procedure, decision or action of the Engineer or the Architect and or the Superintendent, Eskom's Representative, Site *Employer* or Clerk of Works		an action of the *Project Manager* or the *Employer* depending on the context. Clause 14 of the Core Clauses determine what the actions of each are. Either may delegate in terms of Clause 14.2

2. Section 8: Safety Management

2.1 Health and safety requirements

The *Contractor* will comply with the following:

Health and Safety Standards, as per the Medupi Power Station *Contractor*s Safety file.
This file will be handed over on contract award.
Adhere to the OHS Act 85 of 1993
All staff will undergo a one-day Safety Induction training course one week before site occupation.
Adhere to Eskom & Medupi Life Saving Rules

The *Contractor* must appoint Safety Representatives to assist the Employer Representative to:

a. Identify possible hazards, dangers and risks
b. Eliminate potentially dangerous conditions and actions
c. Ensure a safe working environment

2.2 Red Zone equipment

Working on Red Zone Equipment procedure shall be adhered to.

Inspect and record findings of his workplace and submit a copy on a monthly basis to the Employer Representative.
The Employer Representative shall be entitled to request the *Contractor* to stop work, without penalty to the Employer, when the *Contractor*'s personnel fail to conform to acceptable health & safety standards or contravene the health and safety sections and regulations.

The Employer Representative must be informed within 24 hours of any injury or damage to property or equipment.

The *Contractor* must perform job observations on critical tasks as identified and provide proof to the Employer Representative.

2.3 SHE. Documentation Required from the *Contractor*

The following documents must be provided together with the tender by the *Contractor* in terms of Health, Safety and Environmental performance, should the *Contractor* not provide this information it will be assumed that it does not exist

- Detailed costing for Health and Safety (Linked to Risk Assessment) based on the overall scope of work to be performed
- Letter of good standing with COID or any insurance body.
- An Organogram indicating the names of all persons that will hold legal appointments on the project in terms of the Act.

- The expected roles, responsibilities and authority of those who are proposed to receive legal appointments.
- The resume'(s) of the proposed Safety Officer(s) and Environmental Officer(s) his/their roles, responsibilities and authority is required in terms of the scope of work.
- The *Contractor*'s company Safety, Health and Environment policy.
- Provide an overview of the system/program that is utilized to manage Safety, Health and Environment
- Provide a detailed HIRA (Hazard identification and Risk Assessment) based on client specification and the scope of work
- Provide a composite Health and Safety Plan as per the Clients specification?
- Certificates of medical fitness and psychological fitness, where applicable, conducted in relation to the individuals person job specification (Linked to Risk Assessment)

2.4 Health and Safety Plan

Upon the award of the contract, successful *Contractor* must submit a Health and Safety Plan, filed in a Health and Safety File, comprising of the following:

- Proof of the contracting company's own Health and Safety Policy.
- Proof of appointments, assignments and designations as required in terms of the Occupational Health and Safety Act, No 85 of 1993.
- Proof of Risk Assessments regarding Hazards identified.
- Proof of Safe Work Procedures that derived out of the Risk Assessments.
- Proof of the contracting company's own Emergency Plan that will deal with their own emergencies on site.
- Proof of a Fall Protection Plan, if required to perform work at elevated levels developed by a competent person appointed by the contracting company.
- Proof of an Induction Program. It is advised that the Medupi SHE Rules are used as a guide and an attendance register signed by its employees prior the commencement of any construction work on site.
- Proof of the contracting company's employees Medical Fitness Certificate. (Must still be valid for one year and may only have been issued by an occupational health practitioner).
- Proof of *contractor*s weekly Health and Safety Rep Inspections regarding its own site and where detached work is performed.
- Proof of Personal Protective Equipment (PPE) issued to *contractor*'s employees.
- Proof of contracting company's Accident/Incident Reporting and Investigation System.
- Proof of checklists and where applicable test certificates, regarding *contractor*'s tools, equipment, machinery, mobile equipment, vessels under pressure and any other applicable checks required by the Act.

The Safety Officer employed by Medupi Power Station will audit these Health and Safety Plan to ensure compliance with the provisions of the Act. The approval of the health and safety plan can sometimes take 2 to 3 days to approve and no work will be conducted before the plan is approved. The *contractor* has to keep this in mind for their health and file costing.

2.5 Anticipated safety risks

- The contractor will sometimes be required to conduct splicing/lagging near running conveyor belts. This poses a significant risk of personnel getting caught between the running conveyor belt and the idler, pulley or structure. Emergency pull ropes are provided along the length of the belt for emergency situations. The contractor there need take note of this an include it as part of the risk assessment
- The contractor will work with very sharp blades and the necessary PPE need to be worn and training need to be done to avoid lacerations on workers.
- The splicing press is very hot 140 degrees and the necessary PPE need to be worn and training need to be done to avoid burns.
- The press needs to be inspected regularly for correct wiring or exposed conductor to prevent electrocutions by the press or other hand held electrical equipment.
- The contractor will also be working with lever hoists and turfors and care needs to be taken when working with the equipment under tension. Always stand clear of the cable/chain in case of failure of attachment point coming loose.

- Some of the work might be conducted in an elevated position and there is a falling hazard as well as hazard of object falling onto people working below. The *contractor* will compile a fall protection plan as part of his health and safety file and should strictly adhere to Medupi Power Station Working at Heights Work Instruction - 240-135676724
- All normal plant PPE will be required like safety boots, hard hats, earplugs, dust masks, goggles, gloves and bright coloured reflective vests.
- Ash leaks, Ash and coal spillages can occur in the splicing areas and it is recommended that dust mask be worn.
- The *contractor* should be conversant with the chemicals that are used during application, and material safety data sheets should be placed in the health and safety file. See par 8.3.

3. Environmental Rules

3.1 Environmental Management System

Medupi Power Station has been recommended for ISO14001:2004 certificate. To ensure continual improvement to the ISO 14001: 2004, the *Contractor* shall ensure that the following requirements are met:-

- Identify all environmental aspects and impacts.
- Identify the law that is applicable to the scope and ensure compliance to the applicable laws at all times
- All employees shall attend Environmental induction before commencing with the work.

3.2 Waste management

All waste introduced to and/or produced on the *Employer's* premises by the Contractor for this contract, must be handled in accordance with National Environmental Management: Waste act 59 of 2008 and Medupi Waste management procedure.

3.3 Hazardous Chemicals substances

All hazardous Chemicals substances brought on site must be accomplished by Material Safety Data Sheet and shall be managed as per Occupational Health and Safety Act, 1993 Hazardous Chemical Substances Regulations, 1995.

3.4 Environmental Incident

The *Contractor* shall report all Environmental incidents (example: Oil/Chemical spillage, water overflow etc) to Medupi Power Station contract manager or Environmental Officer within 24 hours of them occurring.

3.5 Other Environmental Requirements:

The *Contractor* will be required to ensure that the following environmental requirements are complied with at all times:

1 Zero liquid effluent discharge.

2 No oil or waste will be dumped on an unauthorised area or unlicensed waste site.

4 Asbestos will be handled and stored according to Act 15 of 1973 (hazardous substances Act).

5 No materials or waste will be burnt on site.

6 *Contractor*s shall comply with Medupi SHEQ policy

8.1 Entry:

1. The *Contractor* obtains entry permits, which are issued free of charge by security upon submission of the employee's valid identity documents, subject to *Employer's* applicable rules. The permits remain the property of the *Employer.*
2. The *Contractor* and his employees are always in possession of an entry permit to enable identification is made immediately.

3. The *Contractor* consents to the *Employer's* security searching and inspecting property belonging to the *Contractor* entering or remaining within the area.
4. The *Employer* requires a security clearance of all persons entering the area. The *Contractor* applies for the security clearance of its personnel 48 hours in advance of bringing the personnel to Site.
5. The *Contractor* obtains temporary permits only in cases of an emergency breakdown.

8.2 Permits:

- As per 8.1

8.3 Vehicles:

1. The *Contractor* proves to the *Project Manager* that all drivers of vehicles used by the *Contractor* to Provide the Works are in possession of the *Employer's* authorized driver's licenses.
2. The *Contractor* obtains vehicle permits for vehicles required to Provide the Works from the *Employer's* security department.
3. The *Contractor* obeys the instructions of the *Employer's* security personnel when the *Contractor's* vehicles and those of his Subcontractors are stopped for search and investigation purposes.
4. The *Contractor's* supplier's drivers identify themselves by means of a valid identity document and produce a delivery note addressed to the *Contractor.*

8.4 Equipment, Plant and Materials, tools and other things required to Provide the Works:

1. The *Contractor* inventories all Equipment, Plant and Materials, tools and other things required to provide the Works entering the Site on the prescribed forms obtainable from the *Employer's* security. The original inventory is retained by security and the *Contractor* retains *a* duplicate copy of the inventory.
2. All Equipment, Plant and Materials, tools and other things required to provide the Works brought into the Site by the *Contractor* is clearly marked and is not removed from the Site unless the *Contractor* identifies it as his property and the *Employer* accepted the removal.

8.5 General:

1. Security maintains discipline on Site and disciplinary action against traffic offenders needs to be implemented by the *Contractor* to the *Employers* satisfaction.
2. The *Contractor* does not permit personnel who are under the influence of drugs or alcohol to enter the Site.
3. Further information regarding security requirements is available from the security office at tha main gate:

Section 9: Environmental management

- Medupi Power Station is to be licensed to operate under the National Water Act (Act 36 of 1998), and all plant Operations, Maintenance and Engineering staff ensures that the license conditions detailed within the requirements of the act are met at all times.

- The Employer is committed to meet the environmental regulations. The Contractor to meet the following environmental requirements:

a) Storm water

The Contractor ensures that clean and polluted storm water is and remains separated. All drains are cleaned on a scheduled basis to ensure the drains working at all times. All drainage channels and pipes are kept clean at all times and special attention is given to clean the drains after rain.

b) Contaminated soil

All contaminated soil outside the contained stock yard is removed and dumped at a approved and demarcated area.

c) General Control of Site Activities

The Site is controlled in an environmentally responsible manner. Note the following:

- Noise and pollution levels for all construction Equipment is monitored and managed. Equipment with oil leaks, excessive emission, or unacceptable noise levels are repaired or removed from Site.
- Temporary services are maintained in a good and proper manner.

e) Plant & Material wash-down facilities

Wash down of plant and material can only be done in areas designated by the Project Manager

Section 10: Site services and procedures

1. The *Contractor* applies for access permits at the security gate when access to the Medupi Power Station site is required
2. The *Contractor's* personnel are in the possession of their access permits at all times when on the Site.
3. The *Contractor* provides security for protection of Equipment, Plant and Materials required to Provide the Works

Section 11: Restrictions applicable to the Contractor

- The *Contractor* keeps records of maintenance tasks executed by the *Contractor* as specified by the original equipment manufacturers.
- The *Contractor* interfaces with the *Employer's* personnel to execute specific operational tasks when and does not execute these tasks without prior permission from the *Employer.*

Section 12: Accounts and records

Requirements for the Meetings

1. A "Kick-off meeting" within one month after contract award needs to be held.

2. The *Contractor* arranges and chairs all technical discussion meetings and records minutes of meetings. Weekly progress meetings need to be held. Minutes of meetings are submitted

for acceptance to the *Project Manager* at most one day after the meeting and then distributed to the rest of the attendees.

3. The *Contractor* in conjunction with the *Project Manager* arranges the date and venue of the above-mentioned meetings.

12.1 Assessment, Cash flow and Invoicing

1. The *Contractor* presents his pro-format invoice to the *Project Manager* on the 20th day of each month for perusal.
2. The *Contractor* completes his assessment and submits the amount due on the 22th day of the month for review.
3. The *Contractor* submits an accepted invoice on the last day of the month or the next working day if the last day falls within a weekend.

12.2 The invoices from the *Contractor* contain at least the following information

1. The registered name of the company
2. The VAT registration number of the company
3. The contract number
4. The invoice sequence number
5. The total cost of compensation events (change order) to date
6. The amount paid to date

12.3 Financial records and accounts

12.3.1 The *Employer* pays by bank transfer.

12.3.2 The *Contractor* accepts the risk of incorrect bank transfers arising from changes to the *Contractor's* banking information.

12.3.3 All payments are provisional and subject to audit.

12.3.4 The *Contractor* preserves his records for such a period as the Department of Internal Revenue may require. Should different periods be prescribed, the longest period applies, but in any event, records are retained by the *Contractor* for not less than five years.

12.3.5 The *Project Manager* deducts any amount owed by the *Contractor* to the *Employer* from any amount owed by the *Employer* to the *Contractor.*

12.3.6 The *Contractor* submits original invoices complying with the Value Added Tax Act.

Compiled by: Lufuno Robin Kavhadi

Signature: 

Date: 2026/07/10

Compiled by: Giyani Stanley Hlongwane

Signature:

Date: 2026/07/10