

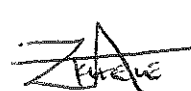
	Works information	Group Technology
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PART 3: SCOPE OF WORK

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C3.1: EMPLOYER'S WORKS INFORMATION

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1 Description of the works

1.1 Executive overview

The works is for hot belt splicing, non-destructive testing to examine condition of the pulley hub, drum shell and shaft, perform repairs on the pulley and application of lagging to provide a replaceable wearing surface at Kriel Power Station, on an "as and when required basis". The Contractor complies with every requirement in this scope guideline and satisfies the requirements of SANS 1699/1 and 240-120532564 "Splicing and Repairs of Steel Cord - and Textile/Plied Reinforced Conveyor Belting".

The scope includes joining and repairing of all ST1000 9/8mm ash, EP630/4ply and EP630/3ply coal plant conveyor belts as listed below. Only hot splicing technique may be used. The "stepped-base" design joint shall be used for plied textile belting and "type-1" design joint shall be used for steel cord belting.

1.2 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
SANS	South African National Standard
QCP	Quality control procedure
QC	Quality control/controller

2 Management and start up.

2.1 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

<i>Title and purpose</i>	<i>Approximate time & interval</i>	<i>Location</i>	<i>Attendance by:</i>
Kick off meeting, implementation strategy	Once off 60 minutes (Time to be announced by Project Manager)	Project Manager's Offices	Project Manager, system engineer and Contractor
Risk register	Daily	On site	Project Manager and Contractor
Compensation events	As and when required	Project Manager's Offices	Project Manager, system engineer and Contractor
Overall contract progress and feedback	As and when required by the project manager (30 minutes)	Project Manager's Offices	Project Manager and Contractor

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the parties, the nature and the progress of the

works Records of these meetings shall be submitted to the *Project Manager* by the person convening the meeting within five days of the meeting

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions

2.2 Documentation control

- The *Contractor's* site manager must keep a daily log, which needs to be signed by the *Employer's* Supervisor daily
- PM-C-01 – "PM" denotes the source (Manager), "C" denotes the recipient (*Contractor*), "01" denotes the communication number (first communication)
- The *Contractor* supplies the following documentation for review and approval by the *Employer* prior to commencing pre-fabrication work
 - Detailed design and drawings
 - Program
 - Detailed safe plant operating philosophy document
 - Detailed control philosophy document
 - Detailed risk assessment to mitigate identified risks and QCP for all planned activities
- The *Contractor* supplies the following documentation for review and approval prior to commencing installation work
 - Installation procedures
 - Work plan for site activities
 - Work packages for each site activity listed under the *Employer's* SAP work order number
 - Testing and commissioning procedures
- The *Contractor* supplies the following documentation before commissioning
 - Report confirming compliance with design
 - Data package (for off-site and site activities)
 - SANS certification
- All documentation is supplied in paper format (2 copies) and electronically (Documents in Microsoft Office, drawings in PDF format and Microstation ver SE format)
- The *Employer* reviews all *Contractor* supplied documentation for compliance and acceptance and adequate time must be allowed for accordingly
- The *Contractor* does not proceed with the works until the *Employer* has approved the works

2.3 Health and safety risk management

The *Contractor* shall comply with the health and safety requirements contained in **Appendix A, *Health and safety risk management***, in this document

2.4 Environmental constraints and management

The *Contractor* shall comply with the environmental criteria and constraints of Kriel power station

For the full duration of the *Works*, the *Contractor* is responsible to keep the work area clean of any rubble, and to place all refuse into the bins provided

2.5 Quality assurance requirements

All work is carried out under the supervision of an experienced supervisor of the *Contractor*

The *Contractor* complies with the *Employer's* Quality Requirements as specified in Eskom Generation Standard GGS 0462. All quality control documentation is submitted to the *Project Manager* within 7 days of Contract date

Proposed QCP will be provided to suppliers after the awarding of the contract

2.6 Contractor's management, supervision and key people

The *Contractor* shall provide a site supervisor to supervise, monitor, control and co-ordinate all activities during the execution

2.7 Invoicing and payment

Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the *Project Manager's* payment certificate

The *Contractor* shall address the tax invoice to the *Project Manager* and include on each invoice the following information

- Invoice and assessment dates
- Name and address of the *Contractor* and the *Service Manager*,
- The contract number, order number and title,
- *Contractor's* VAT registration number,
- The *Employer's* VAT registration number 4740101508,
- Description of service provided for each item invoiced based on the Price List,
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT,

All invoices shall be submitted to the *Project Manager* by hard copy or e-mail

2.8 Insurance provided by the Employer

Refer to the contract Data

2.9 Provision of bonds and guarantees

The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties

The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the *Project Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer's* right to termination stated in this contract

2.10 Records of Defined Cost, payments & assessments of compensation events to be kept by the Contractor

The *Contractor* may keep records of payments, assessments of compensation events if he deems it necessary

3 Engineering Scope of work

3.1 SCOPE OF WORK FOR BELT SPLICING

Belts included in the scope of works

- Horizontal under-staithe coal conveyor belts
Class 630/3 ply grade N – 900 mm wide
Belts 5A, B, C and D, Coal Staithe 1
Belts 5E, F and G, Coal Staithe 2
NOTE for these belts only a 220V supply is available at the rear/back of the staithe and a 380V supply at the front for belt curing vulcanizing press.
- Incline coal conveyor belts
Class 630/4 ply grade N – 900mm wide
Belts 6A, B, C and D, Units 1 - 4
Belts 6E, F and G, Units 4 - 6
- Ash overland conveyor belts
Class ST 1000 Grade M – 1050mm wide
Belt 18A & 18B

ROLL UP TRUCK

Roll up truck to be available to roll up old belt which must accommodate belts size of up to 1050mm

THE CONTRACTOR'S RESPONSIBILITIES

The contractor is not allowed to start any work on site before the employer's representative has issued the relevant working permits, and belt is secured and safe to work on. All material, equipment and tools necessary to carry out splicing and repair work shall be supplied by the Contractor. The contractor shall inform the Employer's representative before each repair regarding the repair details and technique which the Contractor wishes to use. Minor belt repairs must also be done on an as-and-when-required basis. These repairs will be priced separately as indicated on the Price List and will be paid based on price list item number 400 (minor repairs).

After being informed by the Employer's representative that the belt conveyor is safe to work on, the contractor shall verify for himself if the conveyor is safe to work on. He shall proceed and do splicing preparatory work by removing idler frames to make space for the working table and clamping and pulling the belt to provide the necessary slack for the splice.

The Contractor shall carry out hot splicing activity as detailed in the Eskom "Splicing and Repairs of Steel Cord - and Textile/Plied Reinforced Conveyor Belting". The contractor shall provide a service for hot splicing/joining and repair of damaged/torn/broken conveyor belts on the coal plant (belts 5A-5G & 6A-G) and dry dust overland conveyor system (18 A&B) from the conditioners to the ash dams at Kriel Power Station on a as and when required basis seven (7) days per week, including Public Holidays and be available to carry out the work required at any time during the day or night on a twenty four hour (24) basis. He shall record the times, temperature, pressures and humidity on the splice data record form provided in the QCP.

A separate splice data record form shall be completed for each splice performed and it shall be handed to the Employer's representative at the end of each splicing activity. No splicing work shall be invoiced without a completed splice data record form.

Each splice shall be marked with a Contractor's identification number and date on which the splice is performed.

After satisfying himself that the splice is completely cured the Contractor shall remove his splicing vulcanising press and clamps, put back the idler frames and inform the Employer that the conveyor is ready to run. All waste material shall be removed and disposed of in nearest appropriate bins and the immediate area around where work has been carried out shall be cleaned (the contractor will be responsible for housekeeping in his work area).

THE EMPLOYER'S REPRESENTATIVE

The Employer shall supply and deliver to the splicing site any belting, which is to be used as inserts or for replacing the complete old belting.

Belting shall be placed on stands and positioned such that it would be easily pulled in.

The Employer shall provide the Mobil-lift or tractor and rope for pulling the belting.

The employer shall position the damaged spot of the belt at the splicing site and he will isolate the belt and release the conveyor tensioning mechanism.

The Employer shall sign the permit to work and worker's register and clamp the leading side of the belt such that when the trailing side of the belt is pulled the leading side will not move. He will inform the Contractor that the belt is safe to work on.

During the splicing activity, the employer shall check at any stage of the splicing activity whether the Contractor is proceeding according to the splicing specification and QCP. If the Contractor is found not to be complying with the specification, he will be instructed to immediately correct the non-conformity, failure to which he may be asked to vacate the site.

After being informed by the Contractor that the splicing activity is complete and the conveyor is ready to run, the Employer shall inspect the belting, remove his clamp, tension the belt and sign off the permit.

Cut and removed old pieces of belting, belt stands and unused belting shall be rolled and removed from the splicing site by the Employer.

The Employer shall do training and aligning of the belt. If the belt conveyor fails to align because of an improperly done splice, the concerned splice shall be defected and the Contractor shall redo it.

WAITING COSTS

If the Employer issues out a work order to the Contractor but for any reason fails to make available the concerned belt conveyor to the Contractor, the Employer shall be liable for waiting cost charges.

Waiting cost charges will be charged by the Contractor for any length of time above an hour spent by the Contractor waiting on site to be given the belt conveyor by the Employer.

If a work order has been issued out to the contractor and for any reason the Employer decides to cancel that work order with the Contractor already on site, the employer shall be liable for waiting cost charges and transport costs to the Contractor.

The waiting costs shall be charged as a compensation event

The Contractor shall state the waiting cost charges in the price of the tender enquiry

SUITABILITY OF EQUIPMENT AND TOOLS

All equipment and tools used to perform the splices and repairs shall be as stated in the Eskom's "Splicing and Repairs of Steel Cord - and Textile Plied Reinforced Conveyor Belting"

The Employer shall inspect all the equipment and tools before the start of work

If any equipment or tool is found to be defective, the Contractor shall be required to immediately replace that equipment or tool failure to which the Contractor may be asked to vacate site

A lot of emphasis shall be place on the press dimensions, flatness, pressure and temperature distribution abilities

SUITABILITY OF CONSUMABLE MATERIAL

The Employer shall check for suitability all the consumable material used in the making of splices and repairs. The material shall be compatible with the belt being worked on. Shelf lives of all consumables shall be conspicuously displayed on their containers and they must not be used if they have expired

GENERAL

Pulling-in of conveyor belting pieces (inserts) less than 100m shall be taken as being part of the performing a splice. Pulling-in of inserts longer than 100m shall be charged separately as per item no. 400 of the price lists

The Contractor must provide his own transport and accommodation for personnel, prices to be included in the rates as per the Price list

The site working area must be kept clean at all times

All atmospheric data and information shall be captured before, during and after splicing or repair activity

WORKING HOURS

The normal working hours will be as follow.

Mondays – Thursday FROM 07 00 – 16 15

Fridays from 07 00 – 12h00

3.2 SCOPE OF WORK FOR PULLEY REPAIRS AND LAGGING

- The Works shall include transporting to external workshop and returning of pulleys to site
- Pulleys shall be cleaned by high pressure water jet to remove loose dirt prior to stripping
- All the pulley items shall be marked clearly and identified during the stripping process
- Pulley lagging shall be completely removed using solvent cleaning, hand tool stripping, wire brush and grinding where applicable
- The pulleys external shell surfaces shall be abrasive cleaned to SA2½ and paint, scaling, rust etc removed to facilitate inspection

- The *Contractor* shall inform the *Employer* of dates and times to avail themselves for pulley inspections and testing
- The pulley, shafts, end discs shall be inspected for cracks using visual and non-destructive testing using one of the methods, ultrasonic testing techniques, liquid penetrant or magnetic particles testing. Any crack on the pulley shall be cause for rejection
- The *Contractor* shall provide a detailed assessment report with quotation on pulley components condition and suggested repairs
- Pulleys that are still in good condition will proceed to next stage of stress relieved and heating
- All the replacement components shall be new unless otherwise approved by the Employer
- The pulley shafts shall be checked between lathe centres for straightness. A run out of more than 0.5mm on any work surfaces shall be cause for rejection
- The pulley shall be dimensionally checked and results compared to original drawing
- The pulleys running and mating surfaces shall be checked in accordance with bearing manufacturer and locking elements tolerances. Any discrepancies outside the original tolerances shall be cause for rejection
- The shell and end discs shall be visually and dimensionally inspected and results compared to original
- The shell thickness wear in excess of those shown in Table 1 shall be cause for rejection
Dimension in millimetres

Table 1 Shell thickness

Original Shell Thickness	Minimum Repair Shell Thickness
14	10
18	13
22	16
25	18

- All the dimensions shall comply with *Employers* original drawings/ requirements unless otherwise approved
- Locking elements shall be visually inspected for wear, damage and corrosion pitting. All the removed locking elements shall be replaced
- New shafts shall be manufactured where applicable from same steel material with requirements of Employer
- Where the material is unknown the shaft shall be manufactured from BS 970 080M40 (EN8) or BS 970 Grade 070M20 (EN3A)
- New shafts of lengths 130mm shall be supplied as bright shafting and greater than 130mm normalised
- Shafts shall be machined in accordance with supplied details and shapes
- The bearing, seal, locking elements, coupling, and shaft attachment diameters shall be machined to a surface finish of 1.6µm or as required by bearing and locking element suppliers. Undercuts, reliefs and grooves are not permitted
- New shells, hubs and end discs shall be manufactured from steel which complies to SANS 1431 Grade 350WA (SJ355)
- All dimensions shall comply with approved drawing and longitudinal welds and shall be in accordance with BS 5135, circumferential welds are not permitted
- Where locking elements are replaced they shall be replaced with like for like capable of transmitting the maximum permissible torque
- The welding shall comply with requirements of BS 5135 or equivalent such as AWS D1.1

- Welding procedures and welders qualifications records shall be supplied with tender for approval
- Repairs to shell longitudinal, shell-to-end disc welds and end disc bores shall be performed in accordance with procedures approved by the Employer
- Shell longitudinal full penetration butt welds shall be dressed to a smooth profile inside
- End disc to shell welds shall be blend-ground to a smooth radius. Pulley shells shall be stress relieved after all welding has been completed
- The pulley shell shall be machined concentric with shaft and total indicator run out shall not exceed 0.5mm
- Application of natural rubber gum bonding solution to non-drive pulleys forming diamond grooved lagging thickness 10 to 12 mm in accordance with SANS 1669-2
- Application of natural rubber gum bonding solution embedded with dimpled ceramic tiles on drive pulley and high tension pulleys 10 to 12 mm in accordance with SANS 1669-2
- Application of ceramic tiles shall be with studs to create a grip surface for maximum traction and not ceramic paste
- Application of lagging shall be by hot Vulcanizing and heating of the pulley after tiles application to 70°C curing thereafter
- All pulleys should use lagging with a Shore 'A' hardness of between 55 and 65 heated
- *Contractors* to ensure that lagging of pulleys is done by experienced personnel to maximize the useful life of the lagging
- Wood wrapping shall be applied to each pulley for long-term storage
- All the repaired pulleys shall be specified clearly of the warranty period from delivery to site and installation
- Pulleys shall be statically balanced on repairs completion. Where required by the Employer, pulleys shall be dynamically balanced at maximum operating speeds. No fitments are allowed
- All the welding after repairs shall be inspected for cracks using ultrasonic testing, liquid penetrant or magnetic particles technique
- Rubber lining shall be tested according to SANS 1669/1
- The pulley shall be corrosion protected on the shell, hubs, end disks, diaphragm primed not less than 20µm and coated with resin based paint not less than 30µm
- The *Contractor* shall mark on packaging the pulleys to clearly identify name, traceable number, month and year of repair
- Data packs of manufacturing tests and inspection data shall accompany the delivery to site
- Scrap or redundant material shall be credited back to the *Employer*

ACTIVITIES AND PROCEDURE

To firm up the works the *Contractor* shall provide and undertakes the following

- Recommends detailed scope of work after stripping based on test facts and findings which is to be accepted by the *Employer*,
- Alternatively pulleys that are beyond economical repairs will be scrapped pending the Employer's discretion
- Transport away damaged and transport back to site a completely refurbished pulley,
- Works according and abides to final Quality Control Plan compiled and accepted in conjunction with the *Employer* prior to refurbishment work start
- Provides the certification accredited by SANS that the workshop and procedures to be used during repairs process have been assessed and found to satisfy the requirements of SANS 1699 if available
- *Contractors* must be familiar with the process of manufacturing pulleys SANS 1669-1 and 2 and demonstrate such

SPECIFICATIONS

Specification, procedures, standards, policies, acts

	Origin	Type	No. / sheets. / rev.	Description
1	Eskom	Standard	240-62196227	Life-saving Rules Standard
2	Eskom	Procedure	32-93	Vehicle and Drive Safety Management Procedure
3	Eskom	Act Agreement	37(2)	OHSA 37(2) Agreement 240-59678141
4	Kriel	Procedure	RSR0001	Safety, Health And Environment Requirements For Contractors At Kriel P/S
5	ISO 9001	Procedure	QM-58	Supplier Contract Quality Requirements Specification
6	Eskom	Policy	32-36	Smoking Policy
7	Eskom	Procedure	32-407	Behaviour Observation Procedure
8	Kriel Power Station	Procedure	RIR0113	Kriel Emergency Management Response Plan
9	SANS	Standard	SANS 1669 Part 1	Conveyor belt pulleys Pulley types, dimensions and construction
10	SANS	Standard	SANS 1669 Part 2	Conveyor Belt Pulleys. Lagging
11	Testing specification	Standard	ASME VIII Division 1	Referencing Code and Acceptance Criteria (for Liquid Penetrant Examination)
12	Testing specification	Standard	ASME V Articles 4 and 23	Ultrasonic Examination of Welds
13	Testing specification	Standard	ASME V Article 5	Ultrasonic Examination Methods for Materials
14	Testing specification	Standard	ASME VIII Division 1,	Referencing Code and Acceptance Criteria (for Ultrasonic Examination)
15	Testing specification	Standard	ASME V Articles 7 and 25	Magnetic Particle Examination
16	Testing specification	Standard	ASME VIII Division 1	Referencing Code and Acceptance Criteria (for Magnetic Particle Examination)
17	Testing specification	Standard	ASME V Articles 6 and 24	Liquid Penetrant Examination
18			BS EN ISO8501-1 2007	Preparation of steel substrates before application of paints and related products
20	Eskom	Standard	240-120532564	Splicing and Repairs of Steel Cord - and Textile/Plied Reinforced Conveyor Belting

- The *Contractor* is responsible to ensure the safety of all employees as far as practicable without risk to their health
- The contractor is responsible to report all safety deficiencies to Eskom immediately for action
- Adherence to Eskom Life-Saving Rules, Procedure RSR0001, Policy 32-727 and ESP 32-345 Vehicle Safety Specifications when entering the premises of Eskom Holdings SOC Limited, Kriel Power Station
- The Chief of Protective Services may, with valid cause, remove any of the *Contractor's* personnel from the site, either temporarily or permanently, without any prejudice. He may deny access to the site to any person whom, in the opinion of the said Chief of Protective Services, constitutes a security risk

- The *Contractor* is restricted to the delivery areas associated with the instruction on the purchase order. The *Contractor* is forbidden to enter any other areas, and must ensure that his employees abide by these regulations.
- Parking inside the power station is strictly forbidden, except for loading and off-loading purposes.

THE FOLLOWING APPLIES TO SECTIONS 3.1 AND 3.2 ABOVE:

Tests and inspections before delivery

The *Employer* carries out quality inspections at his discretion.

All inspections and testing to be performed in accordance with the Quality Control Procedure developed by the *Contractor*.

The *Employer* shall be provided access to the *Contractor's* premises for the purpose of

- 1 Establishing compliance with the contractual requirements by means of inspections, surveillance and audits.
- 2 Witnessing the performance of any tests.

Quality and Inspection Requirements

- 1 The *Contractor* shall exercise strict and adequate quality control during all phases of the work.
- 2 The *Contractor* shall prepare suitable QCP's for all work carried out.
- 3 The *Employer*, the Inspection Authority, the *Employer* QC Representative and the *Contractor* shall review these QCP's jointly and the actual scope of quality control and inspection required for the Contract agreed upon.
- 4 The QCP's shall be subject to the *Employer's* approval and shall indicate all inspection and test points, the methods and procedures to be used and the acceptance criteria to be applied.
- 5 The *Contractor* is required to notify the *Employer* 24 hours in advance of witness and hold intervention points.

Document Management

All documents supplied by the *Contractor* shall be subject to Eskom's approval. The language of all documentation shall be in English. The *Contractor* shall include the *Employer's* drawing number in the drawing title block. This requirement only applies to design drawings developed by the *Contractor* and his Subcontractors. Drawing numbers will be assigned by the *Employer* as drawings are developed.

Document Identification

The *Contractor* is required to submit the Vendor Document Submission Schedule (VDSS) as per agreed dates to the delegated Eskom Representative. Eskom will pre-allocate document numbers on the VDSS and send back to the *Contractor* through the delegated Eskom Representative. The VDSS is revisable and changes must be discussed and agreed upon by all parties. Changes in the VDSS can be additional documentation to be submitted, changes in submission dates or corrections in documentation descriptions, document numbers, etc. The *Contractor's* VDSS shall indicate the format of documents to be submitted.

Document Submission

All documents must be submitted to the delegated Eskom Representative with transmittal note according to Plant Specific Technical Documents and Records Management Work Instruction (240-76992014). In order to portray a consistent image it is important that all documents used within the project follow the same standards of layout, style and formatting as described in the Work Instruction. The *Contractor* is required to submit documents as electronic and hard copies and both copies must be delivered to the *Eskom Representative* with a transmittal note.

In addition, the *Contractor* shall be provided with the following standards which must be adhered to

- Documentation Management Review and Handover Procedure for Gx Coal Projects (240-66920003)
- Project Documentation Deliverable Requirement Specification (240-65459834)
- Technical Documentation Classification and Designation Standard (240-54179170)

Engineering Change Management

All Design change management shall be performed in accordance to the latest revision of the Eskom Project Engineering Change Management Procedure (240-53114026) and the Employer shall ensure that Contractor is provided with latest revisions of this procedure. Any uncertainty regarding this procedure should be clarified with the Employer. All design reviews will be conducted according to the Design Review Procedure (240-53113685).

DRAWINGS FORMAT AND LAYOUT

The creation, issuing and control of all Engineering Drawings will be in accordance to the latest revision of 240-86973501 Engineering drawing Standard. Drawings issued to Eskom will be a minimum of one hardcopy and an electronic copy. All *Contractors* are required to submit electronic drawings in Micro Station (DGN) format, and scanned drawings in pdf format. No drawings in TIFF, AUTOCAD or any other electronic format will be accepted. Drawings issued to Eskom may not be "Right Protected" or encrypted.

LIST OF REFERENCE PROCEDURES, STANDARDS AND SPECIFICATIONS

The *Contractor* complies with all standards, specifications and regulations as highlighted within this *Works Information*.

Mechanical

- [1] SANS 1366 2013 Steel cord Reinforced Conveyor Belting
- [2] SANS 1173 2013 Fabric Reinforced Conveyor Belting
- [3] SANS 485.2009 Edition 1 Conveyor Belting - Splicing of steelcord conveyor belting
- [4] SANS 484-1 2009 Edition 1 Conveyor Belting - Step splicing for multiply textile reinforced rubber covered conveyor belting - Hot-splicing method

Welding

- [5] 240-106628253 Welding Standard for Welding Requirements on Eskom Plant

Configuration Management

- [6] 240-53114002 Engineering Change Management Procedure
- [7] 240-76992014 Project/ Plant Specific Technical Documents and Records Management Work Instruction
- [8] ECM0005 AKZ-KKS Plant Codification Standard
- [9] ECM0004 Kriel Labelling Specification
- [10] 240-109607332 Eskom Plant Labelling Abbreviation Standard
- [11] 240-53113685 Design Review Procedure
- [12] 240-86973501 Engineering drawing Standard
- [13] 32-6 Document and Records Management Procedure

- [14] 240-66920003 Documentation Management Review and Handover Procedure for Gx Coal Projects
- [15] 240-54179170 Technical Documentation Classification and Designation Standard
- [16] 240-65459834 Project Documentation Deliverable Requirement Specification

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

The *Contractor* shall comply with Basic Condition of Employment Act and Labour Relation Act for the use of labour in executing the works to give effect to the right to fair labour practices referred to in section 23(1) of the Constitution by establishing and making provision for the regulation of basic conditions of employment, and thereby to comply with the obligations of the Republic as a member state of the International Labour Organisation, and to provide for matters connected therewith

4.1.2 BBBEE and preferencing scheme

The *Employer* formal Black Economic Empowerment (BEE) programme was first initiated in 1995 with the publication of its policy regarding procurement from Black Suppliers (ESKADAAT6) ESKADAAT6 has set the standard for BEE programmes within Eskom and across South Africa as a whole

Eskom's policy is to maximise purchases from Black or Black Empowering Enterprises (BEE's) whether Black Woman-owned, small or Large Black or Black empowering suppliers The purpose is to promote entrepreneurship in black communities and give black business access to the mainstream of business opportunity

Eskom will concentrate its development efforts on black supplier's ninth manufacturing, construction and mining /extraction sector of the economy and provide

4.1.3 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Accelerated and Shared Growth Initiative - South Africa in accordance with and as provided for in the *Contractor's* ASGI-SA Compliance Schedule IT 1 2 ASGI-SA requirements

Eskom is committed to the Accelerated and Shared Growth Initiative for South Africa (Asgisa) and its prime objectives of higher growth, more jobs and less poverty Eskom's most significant contribution is through its core business of supplying competitively priced electricity The capacity expansion programme and our focus on operating efficiency are central to our effort to provide the power that will drive accelerated growth

Asgisa is not only about economic growth, but ensuring the growth is shared To contribute to this objective, Eskom will leverage its build programme and associated activities for optimum developmental impact

The *Contractor* shall keep accurate records and provide the *Project Manager* with reports on the *Contractor's* actual delivery against the above stated ASGI-SA criteria

The *Contractor's* failure to comply with his ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract

4.2 Subcontracting

4.2.1 Preferred subcontractors

The *Contractor* shall make use of any supplier for sourcing of equipment, tools and material however whatever the *Contractor* will use to execute works shall comply with the SABS

4.2.2 Subcontract documentation, and assessment of subcontract tenders

- a) The *Contractor* shall submit the proposed contract data for each subcontracting for acceptance to the Project Manager
- b) The *Contractor* shall prepare subcontracting document as according to NEC contract
- c) The *Contractor* must inform the *Employer's* representative when intending to subcontract some of the works from the contract scope
- d) The *Contractor* shall not subcontract a *Contractor* that has lower or higher level accreditation than his/her according to CIDB

4.2.3 Limitations on subcontracting

The *Contractor* shall not subcontract more than 25% of the contract scope

4.2.4 Attendance on subcontractors

The *Contractor* shall in writing inform the *Employer's* representative about the subcontractor intentions for site visits

4.3 Plant and Materials

4.3.1 Quality

- a) All work is carried out under the supervision of an experienced supervisor of the *Contractor*
- b) The *Contractor* complies with the *Employer's* Quality Requirements as specified in Eskom Generation Standard GGS 0462 The *Contractor*, when using materials that are required to comply with a standard specification
- c) The *Contractor* shall, if so ordered, furnish the Engineer with certificates showing that the materials do so comply
- d) Where so specified, materials shall bear the official mark of the appropriate standard
- e) Samples ordered or specified shall be delivered to the Engineer's office on Site
- f) Unless otherwise specified, all proprietary materials shall be used and placed in strict accordance with the published instructions of the relevant manufacturer
- g) All quality control documentation is submitted to the *Project Manager* within 7 days of Contract date

4.3.2 Plant & Materials provided "free issue" by the *Employer*

- a) The *Employer* will provide power supply, water and land for the storage of equipment and material
- b) The *Contractor* shall supply all the necessary equipment and material required to execute the Works
- c) Should the *Contractor* require using of any of the *Employer's* Equipment, including compressed air, electricity, water supply and cranes, it must be specified in the Works Information supplied by the *Contractor* The *Employer* does not guarantee continuity of supply of any of these items

4.3.3 *Contractor's* procurement of Plant and Materials

The *Contractor* shall make use of SABS approved plant and material. Test certificates for such material/equipment shall be given to the project manager.

4.3.4 Spares and consumables

- The *Contractor* shall provide any spares and consumables as required for this project
- Provides all consumables required to carry out the works

4.4 Tests and inspections before delivery

- 1) *Contractor* does not bring to the working area those plant and material which the works information states are to be tested or inspected before delivery until the *Employer's* supervisor has notified the *Contractor* that they have passed the test
- 2) The *Contractor* supplies personnel to assist the *Employer* with cold and hot commissioning of the works
- 3) The *Project Manager* will assign a person(s) who will witness all testing and commissioning
- 4) The *Contractor* supplies all spare (consumable and non-consumable) at commissioning

4.5 Marking Plant and Materials outside the Working Areas

All plant and materials outside working areas are to be marked "for *Contractor*" until such time that they are tested and installed at the site/plant

5 Works

5.1 Temporary works, Site services & construction constraints

5.1.1 *Employer's* Site entry and security control, permits, and Site regulations

- a) The *Contractor* applies for access permits for all works exceeding four (4) weeks via the Project Manager, who will co-ordinate this
- b) The *Contractor* applies for *Contractor's* Permits for all his employees and/or subcontractors at the Security gate, at least 24 hours prior to entry of the Kriel Power Station Security Area
- c) The *Contractor* completes the specific form in the Kriel Power Station *Contractor's* Safety Manual, listing all of the personnel that he intends using on site
- d) The completed list, identified with the *Contractor's* name, contains the following information
 - *Employee Name*
 - *Employee ID Number*
 - *Eskom Safety Co-ordinator signature*
 - *Eskom Project Manager signature*
 - *Validity Date*
- e) No permits are issued to personnel who have not attended safety induction
- f) The *Contractor* photocopies the first page of the ID book of every one of his employees, reduced to the size 65%
- g) This completed list, together with the photocopies of the ID books is delivered to Protective Services for the preparation of the *Contractor's* Permits
- h) The *Contractor* allows at least 24 hours for the preparation of the security permits, before he collects the permits from the Protective Services offices
- i) The *Contractor's* personnel are required to be in possession of a *Contractor's* Permit at all times inside **Kriel** Power Station

- j) All *Contractors'* permits are submitted back to Protective Services when the workers leave the site after completion of the *works*. Failure to return the permits will result in a R25 00 penalty for each non returned permit
- k) The *Contractor* compiles detailed Tool Lists (obtainable from Protective Services) of all tools and equipment to be taken on site before arriving at the power station
- l) Authorised copies of these lists are retained to be used again when the tools and equipment is removed from site
- m) The *Contractor's* visitors and all personnel conform to the security arrangements in force at Kriel Power Station
- n) Application forms for visitors are filled in by the *Contractor's* Site Manager and approved by the *Project Manager*, and submitted to the *Employer's* Protective Services office one day prior to the visit
- o) Visitors will not be allowed on site if the necessary forms are not in the possession of security staff
- p) The Chief Security Officer may, with valid cause, remove any of the *Contractor's* personnel from site, either temporarily or permanently. He may deny access to the site to any person whom, in the opinion of the said Chief Security Officer, constitutes a security risk
- q) No unauthorised vehicles will be allowed on site. Only *Contractor's* vehicles with displayed Contract Vehicle Permits disks will be allowed on site. Contract Vehicle Applications are directed to the *Project Manager* for consideration and approval
- r) The *Contractor* is restricted to the Site. The *Contractor* is forbidden to enter any other areas, and ensures that his employees abide by these regulations
- s) Parking inside the power station is strictly forbidden, except for loading purposes
- t) No recruiting of casual labour may be done on Eskom premises, including the area outside the Power Station Security Gate
- u) Security personnel may search any premises, property or person within the security area of Kriel Power Station
- v) No Photographic equipment will be allowed within the security area of the Power Station without obtaining permission
- w) Application forms for such permission is available from the Protective Services offices
- x) Any person found in possession of such equipment will be prosecuted in terms of the National Key Point Act

5.1.2 Restrictions to access on Site, roads, walkways and barricades

- a) Pedestrian crossing that are marked on the road should be used when crossing the road
- b) Inside the plant walkways there are clear marks that should be used when walking inside the plant to keep safe on any object that might fall
- c) Barricades are provided where there are open trenches and around the sumps and manholes
- d) The *Contractor* shall occupy only such ground as is necessary to carry out the works
- e) All fences and other structure that have been damaged or interfered with by the *Contractor* shall be restored to be in a condition at least equivalent to their original condition

5.1.3 Health and safety facilities on Site

Medical Facilities

- (a) The *Contractor* provides a First Aid service to his employees and sub-*Contractor*. In the case where these prove to be inadequate, like in the event of a serious injury, the *Employer's* Medical Centre and facilities will be available

- (b) Outside the *Employer's* office hours, the *Employer's* First Aid Services will only be available for serious injuries and life threatening situations. The *Employer* shall be entitled, however, to recover the costs incurred, in the use of the above *Employer's* facilities, from the *Contractor*
- (c) The *Contractor* to ensure that qualified and competent First Aiders and Emergency Care staff is permanently on site and at actual construction site for emergency situations, as and when they arrive
- (d) The *Contractor* or his staff shall not move the injured party from the incident position and site unless the person/persons' life is in danger or the person is moved by a qualified and trained Emergency Care Worker

5.1.4 Environmental controls, fauna & flora, dealing with objects of historical interest

- a) No fauna or flora will be collected or removed from any farm by any visitor without written permission of the landowner, in which case cognizance will be taken of appropriate provincial legislation pertaining to fauna and flora
- b) Under such cases Eskom Holding's ethical policies and guidelines will be strictly applied

5.1.5 Title to materials from demolition and excavation

- a) The *Contractor* has no title to an object of value or historical or other interest within the site
- b) The *Contractor* shall notify the Project Manager when such an object is found and the Project Manager will instruct the Contractor how to deal with it
- c) The *Contractor* does not move the object without instruction
- d) The *Contractor* has title to material from excavation and demolishing only as stated in the works information

5.1.6 Cooperating with and obtaining acceptance of others

- a) The *Contractor* shall co-operate with others in obtaining and providing information which they need in connection with the works
- b) The *Contractor* shall share the working area with others in executing the works

5.1.7 Publicity and progress photographs

- a) Should publicity and or progress photographs be required an application shall be made via the Project Manager

5.1.8 Contractor's Equipment

- a) The *Contractor's* attention is drawn to the applicable regulation framed under the Machinery and Occupational Safety Act, 1983 (Act No. 6 OF 1983)
- b) When working in built-in areas, the *Contractor* shall provide and use suitable and effective silencing devices for pneumatic tools and other plant would otherwise cause a noise level exceeding 85 Db(A) during excavation and other works
- c) Alternatively the *Contractor* shall by means of barriers, effectively isolate the source of any such noise in order to comply with the said regulation

5.1.9 Equipment provided by the Employer

- a) Should the *Contractor* require using of any of the *Employer's* Equipment, including compressed air, electricity, water supply and cranes, it must be specified in the Works Information supplied by the *Contractor*. The *Employer* does not guarantee continuity of supply of any of these items
- b) The *Employer* shall be entitled to withdraw use of the said Equipment, should proper maintenance and cleanliness not be ensured. In that event, the *Contractor* shall be obliged to provide the necessary Equipment at his own cost
- c) The *Contractor* is responsible for the repair, replacement or correction as necessary of all pieces of tools and equipment supplied by the *Employer* which are damaged and / or lost whilst in the *Contractor's* custody and control
- d) The *Contractor* site manager must ensure that any one of his employees or Sub-*Contractor*, operating hoist equipment belonging to the *Employer*, is authorised by an Accredited Company and retraining is done annually. Arrangements for training courses can be made via Kriel Power Station Maintenance Training but the *Contractor* will absorb costs
- e) A copy of this accredited and valid training certificate must be given to the *Employer's* Supervisor, who will then arrange access for usage

5.1.10 Site services and facilities

- a) Potable Water Supply
 - Potable water is available at the existing points
- b) Electrical Power Supply
 - Power is available at the existing points
 - The *Contractor* provides his own portable 380V electrical distribution boards, and supply cables to and from the boards, for all his power supply requirements to execute the works
 - *Contractor's* Electrical Distribution Boards complies with OHSA as referred to in the *Electrical Installation Regulations and the Electrical Machinery Regulations*
 - Each board brought onto site has a Certificate of Compliance issued by an accredited person
 - The *Contractor's* electrical distribution boards are installed at the works on a time negotiated with the Supervisor, prior to the possession date
 - The *Employer* connects distribution boards to a 380V three-phase AC power supply, only after the *Contractor* has submitted the valid Certificate of Compliance
 - All *Contractor's* Electrical Distribution Boards are earthed to the steel structure of the plant
- c) Toilet Facilities
 - The *Employer* provides the *Contractor* access to existing toilet facilities
- d) Catering Facilities
 - The *Contractor* are not allowed to use the *Employer's* dining facilities, unless a specific agreement has been made between the *Contractor* and Eskom Catering and Accommodation Services (ECAS)
 - The *Contractor* may buy take away meals from the fast foods outlet on Site
- e) Medical Facilities
 - The *Contractor* provides a First Aid service to his employees and subcontractors. In the case where these prove to be inadequate, like in the event of a serious injury, the *Employer's* Medical Centre and facilities will be available
 - Outside the *Employer's* office hours, the *Employer's* First Aid Services are only available for serious injuries and life threatening situations
 - The *Employer* recovers the costs incurred, in the use of the above *Employer's* facilities, from the *Contractor*

5.1.11 Facilities provided by the Contractor

The *Contractor* should provide facilities they deem necessary in executing the work. This must be discussed with the Project Manager prior to commencement of work.

5.1.12 Excavations and associated water control

- a) The *Contractor* will be held responsible for any damage to known services (Services that are within the site of the works and are known are shown on the drawings) and he shall take all the necessary measure to protect them
- b) All works or protective measure shall be subjected to approval
- c) In the event of service being damaged the *Contractor* shall immediately notify the authority concerned as well the project manager and the engineer
- d) The *Contractor* shall not repair any such service unless instructed to do so
- e) The *Contractor* shall complete such an investigation well in advanced of the of the start of construction work in the said section and shall submit a report in good time to enable the engineer to make whatever arrangements that are necessary for the protection, removal or diversion of the service before any construction works commences
- f) Where the authority concerned elects to carry out on site own account any alteration or protective measure, the *Contractor* shall co-operate with and allow such authority reasonable access and sufficient space and time to carry out the required work
- g) Permanent alteration or permanent diversion of service necessitated by the execution of the works and authorized will be paid for in term of the condition of contract, but no such work will be paid for if it has not been previously inspected and if proper written instruction has to be given

5.1.13 Sequences of construction or installation

All work must be inspected and approved by the system engineer and project manager before it may be closed up

5.1.14 Hook ups to existing works

- a) The *Contractor* must inform the project manager and the engineer if a need arise of hooking up on existing work
- b) The project engineer will then verify the safe use of any existing structure as a support

5.2 Completion, testing, commissioning and correction of Defects

5.2.1 Work to be done by the Completion Date

On or before the Completion Date the *Contractor* shall have done everything required to provide the Works. The *Project Manager* cannot certify Completion until all the work has been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the works and others from doing their work.

On or before the Completion Date the *Contractor* shall have done everything required to provide the Works

5.2.2 Use of the works before Completion has been certified

The *Employer* may use any part of the works before completion has been certified. If he does so, he takes over the part of the works when he begins to use it except if the use is

- a) For the reason stated in the works information
- b) To suite The *Contractors* method of working

The Project Manager certifies the date upon which the *Employer* takes over any part of the works and its extent within one week of the date

5.2.3 Materials facilities and samples for tests and inspections

The *Contractor* and the *Employer* provide material, facilities and samples for test and inspection as stated in the Works Information

Appendix A: Health and safety risk management

A.1. Safety Risk Management

- 1) The *Contractor* complies with the requirements of the Kriel Power Station Safety, Health & Environmental Specifications
- 2) The documents are completed by the *Contractor's* and submitted to the *Employer* before taking possession of the works
- 3) These documents are valid for the duration of the works
- 4) The *Contractor* and all his personnel shall attend a Health and Safety Induction Course prior to starting with the works
- 5) The induction course is presented by the Safety Risk Department at Kriel Power Station prior to commencement of this contract and all the relevant Documentation is to be approved by *Employer's* Safety Officials and the Project Manager before any activities can be started on site
- 6) The *Contractor* makes arrangements with Safety Risk Management at telephone number 013-690-0143
- 7) The *Contractor* submits all the documents as indicated in the Safety, Health & Environmental Specifications relevant to the work to Safety Risk Management before the induction course
- 8) The *Contractor* completes all appointments required and ensures that the appointee and appointees fully understand their responsibilities and are competent and trained to execute their duties
- 9) The appointees/appointee ensures that all duties are carried out and records are kept by the *Contractor* for review/audit by the *Employer* or *Inspector of Machinery*
- 10) Kriel Safety Risk Management has the right and authority to visit and inspect the *Contractor's* work place or Site establishment
- 11) The *Contractor* supplies and ensures that his employees wear the correct PPE according to the risk assessments performed on the specific tasks to be carried out
- 12) The *Contractor* ensures that everyone entering Kriel Power Station under his supervision is medically, physically and psychologically fit to enter Kriel Power Station
- 13) The medical examination, at the *Contractor's* cost, is carried out by a Registered Professional Occupational Health Practitioner and the examination shall include the following tests
 - a Eye Test, Blood Pressure,
 - b Heart Function,
 - c Hearing Test and
 - d Lung Function
 - e A thorough examination is done and previous physical injuries, as well as occupational diseases/complications are covered
- 14) If at any point in time during the execution of the works, the *Contractor* has a radiation-related incident/exposure, the onus is on the *Contractor* to immediately notify the *Employer*, the Medical Station, the Risk Manager and the Safety Risk Management Department
- 15) The onus thereafter is for the *Contractor* to immediately arrange, at his/her cost, for blood samples to be taken by a Registered Laboratory and for this sample to be sent to the Excellerator Laboratory in Cape Town for full radiation exposure tests. This test results are then to be discussed with the Kriel Occupational Health Practitioners, who will then advise the Power Station Management on the risk, if any, of the incident/exposure
- 16) The *Contractor* takes full responsibility and accountability for all other people/staff/personnel/labour that he/she employs or utilises, whether in full-time/part-time/contract basis, in executing the works or other work whilst on the *Employer's* premises
- 17) The *Contractor* ensures that Safety Harnesses are used for all work carried out in elevated positions, as defined in the Occupational Health and Safety Act, No 85 of 1993 or any other Code of Practice or standard or the Construction Regulations
- 18) All safety equipment or Machinery used complies with the SANS Codes of Quality and Practice or any Code as stipulated in the Occupational Health and Safety Act, No 85 of 1993, and any amendments thereto

- 19) The *Contractor* at all times consider himself as "*Employer*" as defined in the Occupational Health and Safety Act, No 85 of 1993 and do not consider himself as under supervision or management of the *Employer* with regard to Health and Safety Requirements but only from a Commercial Contractual Condition of Contract. Under no circumstances does the *Contractor* consider himself a sub-ordinate or being given supervision.
- 20) The *Contractor* to be authorised to gain entry into the prohibited areas should there be a need for him to gain access during execution of the works. Thus the *Contractor* must be ORHVS module 1 accredited.
- 21) The *Contractor* provides and maintains his own facilities as required in the Occupational Health and Safety Act, No 85 of 1993 or any other Code of Practice or standard or the Construction Regulations, if not agreed contractually or arranged by the *Employer*.
- 22) The *Contractor* has Safety Systems in place at his premises for the total contract period and these shall include the following:
 - a Safety Management Structure and Compliance to these
 - b Statutory Appointments
 - c Records and documentation of all Risk and Hazard Analyses
 - d Planned Job Observations Records and Documents
 - e *Employment history and records of all personnel, part-time or full-time or contract labour*
 - f Medical History of all personnel, part-time or full-time or contract labour
 - g Training and Competency Records with regard to Safety, Health and Environment
 - h Training and Competency Records with regard to the skills he uses to carry out the works or any other works in the *Employers* premises
 - i Compensation Commissioner records and proof of registration
 - j Records and documentation with regard to any sub-contractor or labour-only contracts he places or uses to carry out the works or any other works in *Employer's* premises
 - k Personal Protective Equipment and Safety Equipment Inspection, training and competency records and documentation
 - l Employment contracts for all sub-contractor or labour-only contracts
 - m Compliance to a Safety System, such as NOSA or any other system that is similar in nature
 - n Records of all incidents or accidents, and vehicle accidents, incurred during execution of this works or any other works in the *Employer's* premises
 - o Records of all man-hours, including sub-contractors or labour-only contracts, the *Contractor* spends on the *Employer's* premises
 - p Written Safe Work Procedures for all hazardous tasks the *Contractor* executes on the *Employer's* premises
 - q A Fall Protection Plan for all elevated work the *Contractor* does on the *Employer's* premises
 - r Environmental Plan and awareness training
 - s Induction training records of his staff by himself/herself
 - t Minimum wage compliance for the different skills and to which Bargaining Council compliance is made to and proof of membership, if any
 - u Risk Assessment of this type of works
 - v Proof of authorisation/accreditation from Department of Labour and or other Statutory Body for this type of works, if applicable
 - w Emergency Evacuation and Rescue Plan for the hazardous tasks related to the works

A.2. Specific Risks

- 1) The following risks are identified by the *Employer* and *Contractor* specifically addresses these risks to ensure that the works is carried out safely:
 - a Working at heights
 - b High noise area
 - c Work is being carried out overhead
 - d Possibility of fires or explosions
 - e Lifting heavy loads
 - f Vehicle / transport safety
 - g Slipping and falling

A.3. Plant Safety Regulations

- 1) The *Employer*, on request from the *Contractor*, will isolate required plant from all sources of danger as described in the Plant Safety Regulations
- 2) The *Employer's* Project Manager, on request, makes available a copy of the latest revision of the Plant Safety Regulations available to the *Contractor*
- 3) The *Contractor* conforms to all rules and regulations applicable to plant safety and completes the Workman's Register prior to working on the plant
- 4) The *Contractor* declares any grinding and welding to be carried out on the workers register
- 5) At every permit change the *Contractor* withdraws himself/herself/his staff for that period of permit suspension/revocation and thereafter only proceeds with the works after signing onto the new permit
- 6) The *Contractor* ensures that he/she/all sub-contractors/personnel/staff/his visitors are medically, physically and psychologically fit to enter the Kriel Power Station, and specifically any confined space
- 7) The *Contractor* is prohibited from entering Radiation Areas
- 8) The onus is on the *Contractor* to ensure that the correct confined space requirements and tests have been done/met by the *Employer* prior to entry into any confined space or hazardous plant areas
- 9) The *Contractor* ensures that all personnel are competent to carry out the works
- 10) Proof of competency for technical and safety aspects must be available as and when required on site

A.4. Limited Access Register (LAR)

- 1) The LAR is for the person in charge of the plant to maintain control over activities taking place on his plant that are not covered by the Plant Safety Regulation and Operating Regulations for High Voltage Systems
- 2) Activities that are allowed to be carried out under the LAR must not require a permit and must satisfy the following criteria
 - a They must not involve danger to the person carrying out the activity,
 - b No plant isolations must be required,
 - c The activity must be performed by a skilled person and there must be no risk of a production loss,
 - d The duration of the activity must be less than 24 hours
- 3) The Supervisor accompanies the *Contractor* during the first instances of working under a LAR on a specific plant area
- 4) It is very important that the person who plans to do an activity on a plant under the LAR informs the person in charge of the plant (ASS on the panel or PPO at WTP) of what will be done
- 5) This means verbally telling the person in charge of the plant what will be done and not just signing the LAR book The LAR book is also signed
- 6) It is also important that as soon as the activity is completed the person, who was doing the activity, notify (verbally) the person in charge of the plant that conditions are back to normal and that the LAR has been signed off Just signing the LAR book is not sufficient
- 7) For more information please refer to Plant Safety Regulation C11

A.5. Fire precautions

- 1) Any tampering with the *Employer's* fire equipment is strictly forbidden
- 2) All exit doors, fire escape routes, walkways, stairways, stair landings and access to electrical distribution boards must be kept free of obstruction, and not be used for work or storage at any time Fire fighting equipment remains accessible at all times
- 3) In case of a fire, report the location and extent of the fire to the Electrical Operating Desk at extension 2222 or 7911
- 4) Take the necessary action to safe guard the area to prevent injury and spreading of the fire

A.6. Reporting of accidents

- 1) The *Employer* follows an accident prevention policy that includes the investigation of all accidents involving personnel and property This is done with the intention of introducing control measures to prevent a recurrence of the same incidents

- 2) The *Contractor* is expected to fully co-operate to achieve this objective
- 3) The Project Manager is informed immediately of any Category B or C incidents. Category A incidents and any damage to property or equipment must be reported to the Supervisor within 24 hours
- 4) Radiation incidents must be reported immediately
- 5) In reporting Category C and D incidents, the Contractor submits the following documents, or any additional as required by the *Employer's* investigation team
 - a Proof of Contract of Employment
 - b Proof of WCL notification to Department of Labour
 - c Proof of Medical Doctors Note/Certificate detailing nature of injury and period of rest
 - d Death Certificate, if Category C fatality
 - e Risk and Hazard Analysis, if not in place prior to injury
 - f Written Safe Working Procedure, if not in place prior to injury

NOTE! This report does not relieve the *Contractor* of his legal obligation to report certain incidents to the Department of Labour, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act

A.7. Occupational Health and Safety Act 1993 - SECTION 37

- 1) The Contractor and *Employer* agree to the arrangements and procedures between them to ensure compliance by the main Contractor (as the mandatory) with the provisions of Section 37 2 of the Occupational Health and Safety Act, No 85 of 1993
- 2) The *Contractor* complies with
 - a the Occupational Health and Safety Act, 1993, and all Regulations made hereunder,
 - b all Eskom Safety and Operating Procedures
- 3) The *Contractor* acknowledges that he is fully aware of the requirements of all the above and undertakes to employ only people who have been duly authorised in terms thereof and who received sufficient safety training to ensure that they can comply therewith
- 4) The *Contractor* undertakes not to do, or not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures
- 5) The *Contractor* appoints a person who liaises with the Eskom Safety Officer responsible for the premises relevant to the Contract
- 6) The person so appointed on request
 - a supplies the Eskom Safety Officer with copies of minutes of all Health and Safety Committee meetings, whenever he is required to do so,
 - b supplies the Eskom Safety Officer with copies of all appointments in respect of employees employed on this Contract, in terms of the Act and Regulations and notifies the Eskom Safety Officer of any changes thereto
- 7) Eskom may, at any stage during the currency of this agreement, be entitled to
 - a do safety audits at the *Contractor's* premises, its work-places and its employees,
 - b refuse any employee, Subcontractor or agent of the *Contractor* access to its premises if such person has been found to commit any unsafe act or any unsafe working practice or is found to be not authorised or qualified in terms of the Act,
 - c issue the *Contractor* with a work stop order or a compliance order should Eskom become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures referred to in the Occupational Health and Safety Act - 1993 and all Regulations made there under as well as all Eskom Safety and Operating Procedures
- 8) No extension of time will be allowed, as a result of any action taken by Eskom in terms of the foregoing Clause and the *Contractor* has no claim against Eskom as a result thereof

A.8. Hazardous Substances

- 1) It is required in terms of the General Administrative Regulation (Regulation 7) that any Manufacture, Importer, Seller or Supplier of hazardous chemical substance supplies the receiver, free of charge, with sufficient information for the user

A.9. Radiation protection

- 1) The *Contractor* conforms to Kriel procedure HMS0002 when performing any industrial radiography

A.10. Thermal insulation containing asbestos

- 1) The *Contractor* does not disturb any thermal insulating material on the plant until it has been positively identified as not containing asbestos. Approval is obtained from the Supervisor before any thermal insulation is disturbed
- 2) All stripping of asbestos material is undertaken strictly in accordance with the *Employer's* Standard, SAP 0022, available from Safety Risk Management
- 3) The *Project Manager* advises the *Contractor* whether areas that are to be stripped of lagging have been identified as containing asbestos
- 4) The *Contractor* is obliged to ascertain from the *Project Manager* in advance whether areas required to be stripped, are non-asbestos. Any *Contractor*, other than the *Contractor* appointed to remove asbestos strips no lagging material containing asbestos fibres
- 5) The *Contractor* appointed to remove asbestos, does not begin removal without first obtaining the necessary permission from the Deputy Director of Labour and the *Project Manager*

A.11. Barricading and screens

- 1) The *Contractor* provides and installs barricades and warning devices to ensure that equipment and persons are not exposed to danger or to prevent access to dangerous areas
- 2) Additional to barricading, the *Contractor* installs screening, such as black plastic, on the roadside to keep dust away from the road. This is in the interest of transport safety
- 3) All welding, flame cutting and grinding work is prohibited inside and directly outside the fabric filter plant area. All such work is done on ground level
- 4) All gratings are covered with adequate protective screening when welding or flame cutting in the vicinity

A.12. Housekeeping

- 1) The *Contractor's* equipment does not impair the operation of the plant or access to the plant

A.13. Vehicle Safety

- 1) No driver may disregard road signs, drive recklessly, exceed the speed limit, exceed the alcohol limit, or do anything contrary to the National Road Traffic Act while on Eskom business
- 2) No driver may drive a vehicle while holding a cellular or mobile telephone or radio in one or both hands or with any other part of the body. A cellular or mobile telephone or radio equipment may only be used while driving if such telephone or radio device is fitted with a hands-free device, otherwise it must be switched off
- 3) All drivers including *Contractor* and *Contractor* employees, when performing work for Eskom, must ensure that they and their passengers remain seated and wear seatbelts at all times
- 4) No employee may be transported in the back of an open vehicle
- 5) No driver should park a car in such a way that it will be a hazard to other road users
- 6) No driver may use a vehicle without being authorised
- 7) No employee is allowed to drive any Eskom-owned or scheme vehicle if not in possession of a valid national driver's licence as well as an Eskom driver permit