



NEC3 Engineering and Construction

Short Contract (ECSC3)

A contract between Eskom Holdings SOC Ltd (Reg No. 2002/015527/30)

and

for Refurbishment, construction, supply and installation of the Replacement Steam Generator Storage Facility, Reverse Osmosis Plant building, Decontamination workshop, Roads and Car park remainder *works* of SGR Facilities at Koeberg Nuclear Power Station.

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CIDB	4GB	

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C1 Agreements & Contract Data

C1.1 Form of Offer and Acceptance

Offer

The *Employer*, identified in the Acceptance page signature block on the next page, has solicited offers to enter into a contract for the procurement of:

Refurbishment, construction, supply and installation of the Replacement Steam Generator Storage Facility, Reverse Osmosis Plant building, Decontamination workshop, Roads and Car park remainder Works of SGR Facilities at Koeberg Nuclear Power Station.

The tenderer, identified in the signature block below, having examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the *Contractor* under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the Contract Data.

The offered total of the Prices exclusive of VAT is	R[•]
Value Added Tax @ 15% is	R[•]
The offered total of the Prices inclusive of VAT is	R[•]
(in words) [•]	

This Offer may be accepted by the *Employer* by signing the form of Acceptance overleaf and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the conditions of contract identified in the Contract Data.

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Tenderer's CIDB registration number:

Acceptance

By signing this part of this Form of Offer and Acceptance, the *Employer* identified below accepts the tenderer's Offer. In consideration thereof, the *Employer* shall pay the *Contractor* the amount due in accordance with the conditions of contract identified in the Contract Data. Acceptance of the tenderer's Offer shall form an Agreement between the *Employer* and the tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the Contract, are contained in:

Part 1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part 2 Pricing Data

Part 3 Scope of Work: *Works* Information

Part 4 Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the *Employer* during this process of Offer and Acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be signed by the duly authorised representative(s) for both parties.

The tenderer shall within one week of receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the *Employer's* agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data at, or just after, the date this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the tenderer receives one fully completed and signed copy of this document, including the Schedule of Deviations (if any) together with all the terms of the contract as listed above.

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Note: If a tenderer wishes to submit alternative tender offers, further copies of this document may be used for that purpose, duly endorsed, 'Alternative Tender No. _____'

Schedule of Deviations

Note:

1. To be completed by the *Employer* prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the *Employer* prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1	[•]	[•]
2	[•]	[•]
3	[•]	[•]
4	[•]	[•]
5	[•]	[•]
6	[•]	[•]
7	[•]	[•]

By the duly authorised representatives signing this Schedule of Deviations below, the *Employer* and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the *Employer* during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

For the tenderer:**For the *Employer***

Signature

Name

Capacity

On behalf
of

(Insert name and address of organisation)

(Insert name and address of organisation)

Name &
signature
of witness

Date

C1.2 Contract Data

Data provided by the *Employer*

Clause	Statement	Data
General		
10.1	The <i>Employer</i> is (Name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
10.1 & 14.4	The <i>Employer's</i> representative to whom the <i>Employer</i> in terms of clause 14.4 delegates his actions ¹ is (Name):	Mandlakayise Bassie
	Address	Eskom Holdings SOC Ltd, Koeberg Nuclear Power Station R27 off West Coast Road, Melkbosstrand, Republic of South Africa, 7441
	Tel No.	+27 21 522 3104
	E-mail address	BassieM@eskom.co.za
11.2(11)	The <i>works</i> are	Refurbishment, construction, supply and installation of the Replacement Steam Generator Storage Facility, Reverse Osmosis Plant building, Decontamination workshop, Roads and Car park remainder Works of SGR Facilities at Koeberg Nuclear Power Station.
11.2(13)	The <i>Works</i> Information is in	the document called 'Works Information' in Part 3 of this contract.
11.2(12)	The Site Information is in	the document called 'Site Information' in Part 4 of this contract.
11.2(12)	The <i>site</i> is	the Site areas associated with the <i>works</i>, are within the boundaries of Access Control Point 2 (ACP-2) at Koeberg Nuclear Power Station
30.1	The <i>starting date</i> is.	02 March 2022
11.2(2)	The <i>completion date</i> is.	21 July 2022
13.2	The <i>period for reply</i> is	1 (one) week
40	The <i>defects date</i> is	52 (fifty-two) weeks after Completion
41.3	The <i>defect correction period</i> is	2 (two) weeks
50.1	The <i>assessment day</i> is the	monthly, between the 24th and 25th day of each successive month.

¹ Except those actions which can only be done by the *Employer* as a Party to the contract.

50.5	The <i>delay damages</i> are	R30 000.00 per day upto 20% of the Prices at the Contract Date
50.6	The retention is	10% of the Prices at the Contract Date
51.2	The interest rate on late payment is	Zero (0%) above the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rand
80.1	The <i>Contractor</i> is not liable to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property in excess of	The amount of the deductibles, in the amount of R500 000 (Five hundred thousand Rand) payable in terms of the <i>Employer's</i> Annual Construction All Risk Insurance Policy, available on request from Eskom Group Insurance.
	Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?	No
93.1	The <i>Adjudicator</i> is	The referring Party selects 2 (two) persons from the panel of NEC Adjudicators set up by the ICE-SA Division (or its successor body) of the South African Institution (see www.ice-sa.org.za) and whose availability he has confirmed to act as the Adjudicator. The other Party selects 1 (one) of the 2 (two) nominees to be the Adjudicator within 4 (four) days, failing which the person chosen by the first party will be the Adjudicator. The parties appoint the selected Adjudicator under the NEC3 Adjudicator's Contract. If the Parties do not agree on an Adjudicator, the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).).
93.2(2)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body
93.4	The <i>tribunal</i> is:	arbitration.
	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Cape Town, South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.
	- if the arbitration procedure does not state who selects an arbitrator, is	

The conditions of contract are the NEC3 Engineering and Construction Short Contract (April 2013)²³ and the following additional conditions Z1 to Z15 which always apply:

Z1	Cession delegation and assignment
Z1.1	The <i>Contractor</i> does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the <i>Employer</i> .
Z1.2	Notwithstanding the above, the <i>Employer</i> may on written notice to the <i>Contractor</i> cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.
Z2	Change of Broad Based Black Economic Empowerment (B-BBEE) status
Z2.1	Where a change in the <i>Contractor's</i> legal status, ownership or any other change to his business composition or business dealings results in a change to the <i>Contractor's</i> B-BBEE status, the <i>Contractor</i> notifies the <i>Employer</i> within seven days of the change.
Z2.2	The <i>Contractor</i> is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the <i>Employer</i> within thirty days of the notification or as otherwise instructed by the <i>Employer</i> .
Z2.3	Where, as a result, the <i>Contractor's</i> B-BBEE status has decreased since the <i>starting date</i> the <i>Employer</i> may either re-negotiate this contract or alternatively, terminate the <i>Contractor's</i> obligation to Provide the <i>Works</i> .
Z2.4	Failure by the <i>Contractor</i> to notify the <i>Employer</i> of a change in its B-BBEE status may constitute a reason for termination. If the <i>Employer</i> terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the <i>Employer</i> of completing the <i>works</i> .
Z3	Confidentiality
Z3.1	The <i>Contractor</i> does not disclose or make any information arising from or in connection with this contract available to others except where required by this contract. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the <i>Contractor</i> , enters the public domain or to information which was already in the possession of the <i>Contractor</i> at the time of disclosure (evidenced by written records in existence at that time). Should the <i>Contractor</i> disclose information to others where required by this contract the <i>Contractor</i> ensures that the provisions of this clause are complied with by the recipient.
Z3.2	If the <i>Contractor</i> is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the <i>Employer</i> .
Z3.3	In the event that the <i>Contractor</i> is, at any time, required by law to disclose any such information which is required to be kept confidential, the <i>Contractor</i> , to the extent permitted by law prior to disclosure, notifies the <i>Employer</i> so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the <i>Contractor</i> may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.

² If June 2005 Edition applies, delete April 2013 and insert June 2005

³ State whether attached as a 'PDF' file in terms of Eskom's licence, or to be obtained from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

Z3.4	The taking of images (whether photographs, video footage or otherwise) of the <i>works</i> or any portion thereof, in the course of Providing the <i>Works</i> and after Completion, requires the prior written consent of the <i>Employer</i> . All rights in and to all such images vests exclusively in the <i>Employer</i> .
Z3.5	The <i>Contractor</i> ensures that all his sub-contractors abide by the undertakings in this clause.
Z4	Waiver and estoppel: Add to clause 12.2:
Z4.1	Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties or their delegates or the <i>Adjudicator</i> does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.
Z5	Health, safety and the environment
Z5.1	<p>The <i>Contractor</i> undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the <i>works</i>. Without limitation the <i>Contractor</i>:</p> <ul style="list-style-type: none"> • accepts that the <i>Employer</i> may appoint him as the “Principal <i>Contractor</i>” (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) (“the Construction Regulations”) for the Site; • warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of <i>works</i>; and • undertakes, in and about the execution of the <i>works</i>, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his SubContractors, employees and others under the <i>Contractor</i>’s direction and control, likewise observe and comply with the foregoing.
Z5.2	The <i>Contractor</i> , in and about the execution of the <i>works</i> , complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his sub-contractors, employees and others under the <i>Contractor</i> ’s direction and control, likewise observe and comply with the foregoing.
Z6	Provision of a Tax Invoice and interest. Add to clause 50
Z6.1	The <i>Contractor</i> provides the <i>Employer</i> with a tax invoice in accordance with the <i>Employer</i> ’s procedures stated in the Works Information, showing the correctly assessed amount due for payment.
Z6.2	If the <i>Contractor</i> does not provide a tax invoice in the form and by the time required by this contract, the time by when the <i>Employer</i> is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the <i>Employer</i> in terms of clause 51.2 is then calculated from the delayed date by when payment is to be made.
Z6.3	The <i>Contractor</i> is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the <i>Employer</i> ’s VAT number 4740101508 on each invoice he submits for payment.

Z7	Notifying compensation events
Z7.1	Delete from the last sentence in clause 61.1, “unless the event arises from an instruction of the <i>Employer</i> .”
Z7.2	Add to core clause 62.3 “The <i>Employer’s Representative</i> reply which is an acceptance of a quotation for a compensation event may require the due authority of the <i>Employer</i> .”
Z7.3	Add core clause 62.6 “The <i>Employer’s Representative</i> extends the time allowed for : <ul style="list-style-type: none"> the <i>Contractor</i> to submit quotations for a compensation event and the <i>Employer’s Representative</i> to reply to a quotation The <i>Employer’s Representative</i> notifies the <i>Contractor</i> if the <i>Employer’s</i> authority is required and includes in his notification any extension to the period within which he is required to reply to the <i>Contractor’s</i> quotation.
Z8	<i>Employer’s</i> limitation of liability; Add to clause 80.1
Z8.1	The <i>Employer</i> liability to the <i>Contractor</i> for the <i>Contractor’s</i> indirect or consequential loss is limited to R0.00 (zero Rand).
Z9	Termination: Add to clause 90.2, after the words “or its equivalent”:
Z9.1	or had a business rescue order granted against it.
Z10	Addition to Clause 50.5
Z10.1	If the amount due for the <i>Contractor’s</i> payment of <i>delay damages</i> reaches the limits stated in this Contract Data (if any), the <i>Employer</i> may terminate the <i>Contractor’s</i> obligation to Provide the Works. If the <i>Employer</i> terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the <i>Employer</i> of completing the <i>works</i> .
Z11	Ethics
For the purposes of this Z-clause, the following definitions apply:	
Affected Party	means, as the context requires, any party, irrespective of whether it is the <i>Contractor</i> or a third party, such party’s employees, agents, or Sub consultants or sub-contractors employees, or any one or more of all of these parties’ relatives or friends,
Coercive Action	means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,
Collusive Action	means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,
Committing Party	means, as the context requires, the <i>Contractor</i> , or any member thereof in the case of a joint venture, or its employees, agents, or sub-contractors or the sub-contractors employees,
Corrupt Action	means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,

Fraudulent Action	means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,
Obstructive Action	means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and
Prohibited Action	means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.
Z11.1	A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.
Z11.2	The <i>Employer</i> may terminate the <i>Contractor's</i> obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the <i>Contractor</i> did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the <i>Employer</i> has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the <i>Employer</i> can terminate the <i>Contractor's</i> obligation to Provide the Services for this reason.
Z11.3	If the <i>Employer</i> terminates the <i>Contractor's</i> obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.
Z11.4	A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the <i>Employer</i> does not have a contractual bond with the Committing Party, the <i>Contractor</i> ensures that the Committing Party co-operates fully with an investigation.
Z12	Insurance
Z12.1	Replace core clause 82 with the following: 82.1 When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force. 82.2 The Contractor provides the insurances stated in the Insurance Table A, from the starting date until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity	Cover provided until
Loss of or damage to the works	The replacement cost where not covered by the <i>Employer's</i> insurance The <i>Employer's</i> policy deductible as at contract date, where covered by the <i>Employer's</i> insurance	The <i>Employer's</i> certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance The <i>Employer's</i> policy deductible as	The Defects Certificate has been issued

	at contract date, where covered by the <i>Employer's</i> insurance	
The <i>Contractor's</i> liability for loss of or damage to property (except the <i>works</i> , Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Works	<p><u>Loss of or damage to property</u></p> <p><u><i>Employer's</i> property</u></p> <p>The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible as at contract date where covered by the <i>Employer's</i> insurance</p> <p><u>Other property</u></p> <p>The replacement cost</p> <p><u>Bodily injury to or death of a person</u></p> <p>The amount required by the applicable law</p>	
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law	

Z12.2

82.3 The *Employer* provides the insurances as stated in the Insurance Table B

Insurance against	Minimum amount of cover or minimum limit of indemnity
Assets All Risk	As per the insurance policy document.
Project insurance	As per the insurance policy document.
Nuclear Public Liability	As per the insurance policy document.
Nuclear Material Damage and Business Interruption	As per the insurance policy document.

Nuclear Material Damage Terrorism	As per the insurance policy document.
General and Public Liability	As per the insurance policy document.
Environmental Liability	As per the insurance policy document.
Transportation (Marine)	As per the insurance policy document.
Marine Small Craft Liability	As per the insurance policy document.
Motor Fleet and Mobile Plant	As per the insurance policy document.
Cyber Liability	As per the insurance policy document.

Z13 Nuclear Liability

- Z13.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 44 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 44 of 1999, or any replacement section dealing with the same subject matter.
- Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z14 Communications

- Z14.1 Add to the end of the first sentence in core Clause 13.1:
- “excluding communication by a communications protocol allowing the interchange of short text messages between mobile telephone / tablet devices and a store-and-forward method of writing, sending, receiving and saving messages over the internet.”

Z15 Asbestos

	For the purposes of this Z-clause, the following definitions apply:
AAIA	means approved asbestos inspection authority.
ACM	means asbestos containing materials.
AL	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
SANAS	means the South African National Accreditation System.
TWA	means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.
Z15.1	The <i>Employer</i> ensures that the Ambient Air in the area where the <i>Contractor</i> will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.
Z15.2	Upon written request by the <i>Contractor</i> , the <i>Employer</i> certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The <i>Contractor</i> may perform Parallel Measurements and related control measures at the <i>Contractor's</i> expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
Z15.3	The <i>Employer</i> manages asbestos and ACM according to the Standard.

Z15.4	In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
Z15.5	The <i>Contractor's</i> personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
Z15.6	The <i>Contractor</i> continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
Z15.7	Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos <i>Contractor</i> , instructed by the <i>Employer</i> at the <i>Employer's</i> expense, and conducted in line with South African legislation.

Data provided by the Contractor (the Contractor's Offer)

The tendering *Contractor* is advised to read both the NEC3 Engineering and Construction Short Contract (April 2013) and the relevant parts of its Guidance Notes (ECSC3-GN)⁴ in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on page 31 of the ECSC3 April 2013 Guidance Notes.

Completion of the data in full is essential to create a complete contract.

10.1	The <i>Contractor</i> is (Name):	[•]
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	E-mail address	[•]
63.2	The percentage for overheads and profit added to the Defined Cost for people is [The percentage for overheads and profit are applied to any change in the Defined Cost due to the compensation event. The percentage is required to cover all costs and overheads not included in the Defined Cost as well as an allowance for profit. This percentage is applied to Defined Cost for people.]	[•]%
63.2	The percentage for overheads and profit added to other Defined Cost is [The percentage for overheads and profit are applied to any change in the Defined Cost due to the compensation event. The percentage is required to cover all costs and overheads not included in the Defined Cost as well as an allowance for profit. This percentage is applied to all Defined Cost except people.]	[•]%
11.2(9)	The Price List is in	the document called 'Price List' in Part 2 of this contract.
11.2(10)	The offered total of the Prices is [Enter the total of the Prices from the Price List]:	R[•] excluding VAT [in words] [•] excluding VAT

⁴ Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

C2 Pricing Data

C2.1 Pricing assumptions

Entries in the first four columns in the Price List are made either by the *Employer* or the tendering *Contractor*

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price column only; the Unit, Quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters the rate which is then multiplied by the expected quantity to produce the Price, which is also entered.

All Prices are to be shown excluding VAT unless instructed otherwise by the *Employer* in Tender Data or in an instruction the *Employer* has given before the tenderer enters his Prices.

If there is insufficient space in the Price List which follows, state in which document the Price List is contained.

C2.2 Price List

The Price List is as follows

Item no.	Description	Unit	Quantity	Rate	Price
A	Section A Preliminaries and General				
A.1	Fixed				
A.1.1	FFD and Mobilisation	Item	1	R	R
A.1.2	Site establishment	Item	1	R	R
A.2	Time Related				
	Monthly payment for time related cost will be derived by dividing the total remaining cost of the items by the total remaining months(Including the month for which payment is due) for the project as per the latest accepted schedule.				
A.2.1	Supervision and management	Item	1	R	R
A.2.2	Transport	Item	1	R	R
A.2.3	Insurances	Item	1	R	R
B	Section B RSGSF Completion				
	Paving shall be laid in accordance with SABS 1200 MJ, SANS 1058 and the Concrete Masonry Association's specifications				
B.1	80mm thick class 25 type S-A segmental block paving on 150 thick G5 stabilized layer compacted to 95% mod aashto - to be sloped on pedestrian walkway.				
B.1.1	Supply and install	m ²	1653.95	R	R
B.1.2	Install only, free issued material	m ²	120	R	R
B.2	80mm thick natural grey 40 MPa concrete				

	interlocking pavers in herringbone Pattern on G5 and G7 layers compacted to 95% mod aashto - to be sloped on ramp.				
B.2.1	Supply and install	m ²	470	R	R
B.3	<u>Interlocking planter blocks</u>				
B.3.1	Retaining structures with stepped face and curves as required to suit slopes, of 400 x 350 x 225mm high interlocking planter blocks laid with horizontal bed joints to 90 degree slope, including average 500mm thick compacted earth filling behind the blocks and filling blocks with garden soil lightly tamped as the work proceeds	m ²	60	R	R
B.4	Allow a provisional sum of R150 000.00 for stormwater management.	Item	1	R-	R150 000.00
C	Section C DECON building				
C.1	2m x 1.2m x 0.2m (thick) concrete (class 20/19) landing with reinforcement mesh (ref 617) in front of the fire escape door	No	1	R	R
C.2	Supply and install 4m long x 1m high mentis handrail (to be painted as per the <i>Employer's</i> cooperate colours)	No	1	R	R
C.3	Supply and install flashing 300mm x 0.8mm	M	4	R	R
D	Section D RO building refurbishment				
D.1	Remove and dispose all the existing asbestos roof sheeting and side cladding	m ²	850	R	R
D.2	0.53mm Zinc Aluminum IBR 686 double sheets, with rock wool insulation in-between, fixed to steel purlins in cladding and roof.	m ²	850	R	R
D.3	Remove structural steel columns [152x152x23 H section	No	3	R	R
D.4	Cutting out of girts in area of roller door area.	No	3	R	R

D.5	Construct roller shutter door structural frame for a 3mX2.5m Roller door composed of 152X152X23 H Section column and 150x50x20mmx2.5mm CFLC channel section.	No	1	R	R
D.6	Supply and install an automated galvanized roller door (3m x 2.5m).	No	1	R	R
D.7	Demolition of raised concrete plinths bases, see appendix A	m³	6	R	R
D.8	Clean and close out existing floor trenches and openings inside the building with concrete (class 35/19).	m³	12	R	R
	Paving shall be laid in accordance with SABS 1200 MJ, SANS 1058 and the Concrete Masonry Association's specifications				
D.9	80mm thick natural grey 40 MPa concrete interlocking pavers in herringbone Pattern on G5 and C4 layers compacted to 97% mod aashto - to be sloped on ramp. Refer to the scope of works for layer works design.				
D.9.1	Supply and install	m²	64	R	R
E	Section E Car Park				
	Cables etc.				
E.1	Supply 4 Fibres Cable MM-50/125-OM2 6 elements 1LT(PBT) 2.2mm, GRP, DRY WB, PE, SWA, PE, (steel wire armoured) black	m	50	R	R
E.2	Access joint box	No	1	R	R
F	SECTION F Provisional sums				
F.1	Allow a provisional sum of R100 000.00 for Trigrammes	Item	1	R	R100 000.00
	The total of the Prices (excluding VAT):				

C3: Scope of Work

C3.1 Works Information

1. Description of the works

The *works* are for the Completion of the remainder of SGR Facilities at Koeberg Nuclear Power Station (KNPS).

The *works* include but are not limited to:

1.1. Replacement Steam Generation Storage Facility (RSGSF) completion requirements

- The *Contractor* installs a pedestrian walkway along the eastern boundary (behind the newly constructed edging) connecting the eKhaya building and the existing walkway located on the south-eastern corner of existing storm-water pond, refer to drawing **SC105 rev Z**. The *Contractor* uses existing paver bricks and allows for any additional pavers required to complete the *works*.
- The total area of approximately 610m² in front of the RSGSF and tools storage building (between the Eastern wall and the road) must be paved by the *Contractor*, using 80mm natural grey 40 MPa concrete interlocking pavers in a herringbone pattern to allow for the Replacement Steam Generators (RSG's) and Equipment to enter the building, these areas are denoted as 1 and 2 respectively. The entrance into the building in front of the large doors has already been constructed. Refer to **drawing SC105 rev Z**, for the paving detail.
- *Contractor* conducts landscaping around the completed works to accommodate storm-water surface run-off and conducts rehabilitation.as per drawing: **SC105 rev Z**.

1.2. Decontamination Workshop completion requirements

- The *Contractor* constructs 2m x 1.2m x 0.2m (thick) concrete (class 20/19) landing with reinforcement mesh (ref 617) in front of the fire escape door at the decontamination workshop. Refer to drawing **KBA0003B041000-DOC-NO-136126**.
- The *Contractor* supplies and installs 4m long x 1m high mentis handrail (to be painted as per the *Employer's* cooperate colours (ESK AM AAA 1: Corporate Identity Manual) [34]. Refer to drawing **KBA0003B041000-DOC-NO-136126**.
- The *Contractor* supplies and installs flashing 4m x 300mm x 0.8mm. The flashing shall be cut and bent, by the *Contractor*, to close openings on the decontamination workshop.

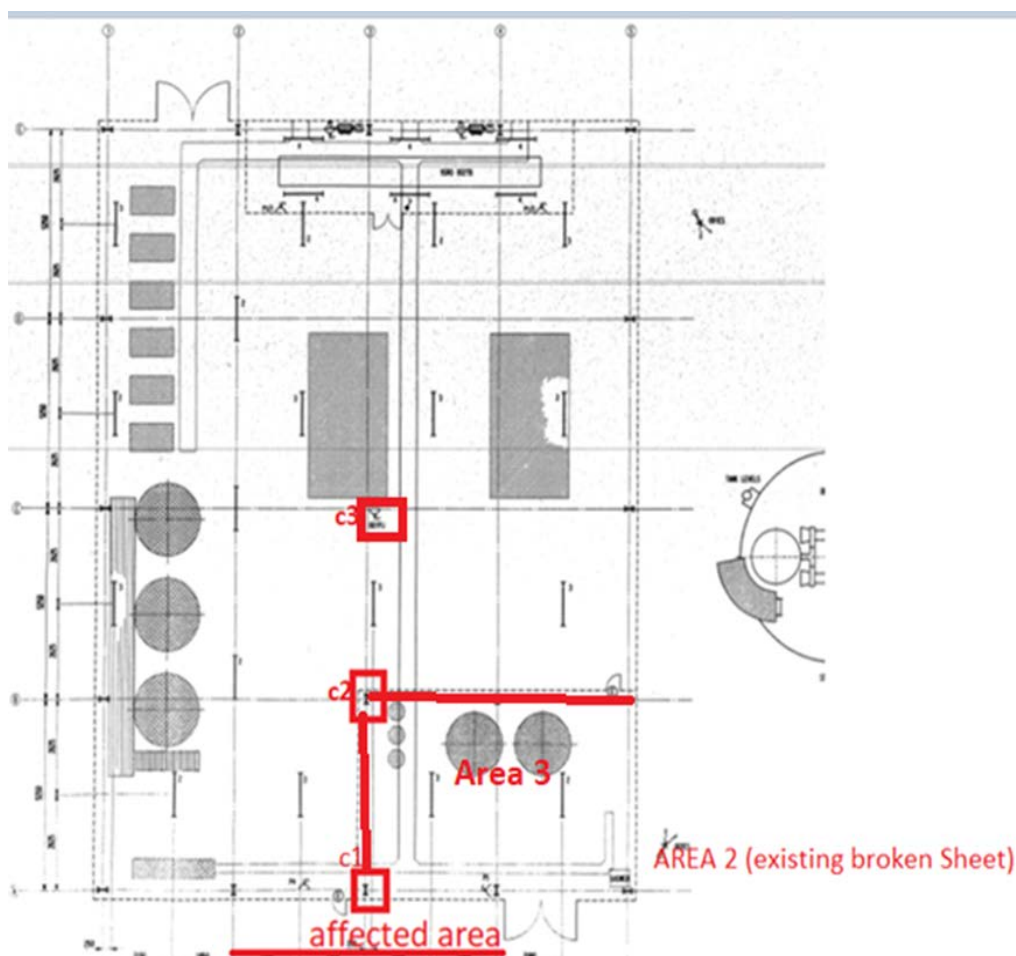
1.3. Reverse Osmosis (RO) building refurbishment requirements

- The *Contractor* removes and disposes of all the existing asbestos roof sheeting and side cladding (Approximately 850m² of roof and side cladding will need to be removed).
- The *Contractor* removes the 2 structural steel columns indicated as C1&C2 [152x152x23 H]. Refer to **figure 1**: Plan view of the RO building. An additional internal column (one in number) is also to be removed, by the *Contractor*, from the building, this column is not indicated on the drawings but it is existing onsite.
- Approximately 3 front girts closing the front part of the building will need to be cut out, by the *Contractor*, to make way for the roller shutter door frame. The cutting out terminates at the area where the roller shutter door frame is to be installed, by the *Contractor*.
- The *Contractor* installs the structural steel frame to support the automated galvanized roller door (3m x 2.5m). The frame structure supporting the roller door must be constructed of the same size columns as the existing inner columns (152x152x23 H section) and overhead 150x50x20mmx2.5mm CFLC channel section. The frame structure must be doweled, by the *Contractor*, to the existing concrete slab.

- The *Contractor* installs front girts to either side of the roller door frame in order to support side cladding. The side girts must be of similar size and spacing as the existing side girts.
- The *Contractor* clads the entire RO building by 2 hours rated double cladding by making use of Zinc aluminum IBR 686 sheeting, 140mm rockwool, and associated fittings as per manufactured specification. Refer to drawing **SC105** cladding detail.
- The *Contractor* supply and installs an automated galvanized roller door (3m x 2.5m).
- The *Contractor* cleans and closes out existing floor trenches and openings inside the building with concrete (35MPa and, 19mm aggregate stones). The estimated quantities are 12m³ of concrete.
- The *Contractor* fills existing trenches inside the facility with 6m³ concrete and cut out protruding concrete surface areas (plinths). All concrete finishing shall be as per 331-170 Requirements for Protective Coatings for Use at Koeberg Nuclear Power Station [35].
- The *Contractor* constructs a paving ramp to the building in accordance with the detail provided in **figure 2**: SGR access ramp layers work with estimated quantities.
- The *Contractor* must be accredited to work with asbestos.

1.4. CAR PARK Completion Requirements

- The *Contractor* supplies 4 Fibres cable MM-50/125-OM2 6 elements 1LT(PBT) 2.2mm, GRP, DRY WB, PE, SWA, PE, (steel wire armoured) black and access joint box to repair an installed broken cable. The cable length is approximately 50 meters.



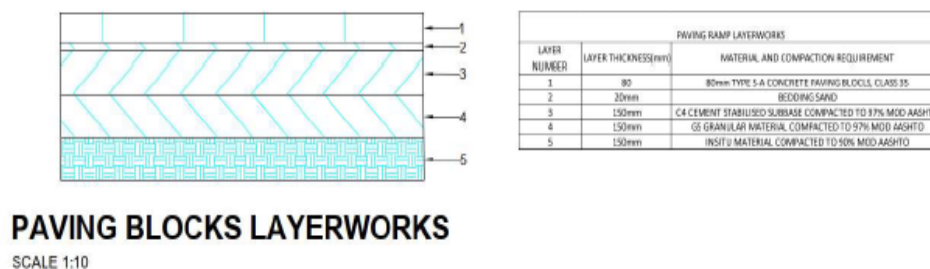


Figure 2: SGR Access Ramp layers works

2. Definitions and Abbreviations

2.1. Abbreviations

Abbreviation	Meaning given to the abbreviation
AASHTO	The American Association of State Highway and Transportation Officials
ACP	Access Control Point
ALARA	As Low as Reasonably Achievable
CAP	Corrective Action Programme
CIDB	Construction Industry Development Board
COC	Certificate of Compliance
COID	Compensation in the case of Disablement
COVID-19	Corona virus disease 2019 (The global pandemic)
CR	Condition Report
CSC	Construction Status Certificate
ECC	Engineering and Construction Contract
ECSC	Engineering and Construction Short Contract
EIA	Environmental Impact Assessment
HP	Human Performance
HPO	Human Performance Officer
HPR	Human Performance Representative
HPT	Human Performance Training
ISO	International Standard Organisation
KNPS	Koeberg Nuclear Power Station
KORC	Koeberg Operations Review Committee
LAN	Local Access Network
NKP	National Key Point
NNR	National Nuclear Regulator
NRM	Nuclear Related Modifications
OHSA	Occupational Health and Safety Act, Act 85 of 1993
PAT	Plant Access Training (Course)
pdf	Portable Document Format (Adobe Acrobat)
PID	Public Information Document
PPE	Personal Protective Equipment
PSA	Probabilistic Safety Assessments
QA	Quality Assurance.
QCP	Quality Control Plans
RO	Reverse Osmosis
RSG	Replacement Steam Generator
RSGSF	Replacement Steam Generation Storage Facility
SACPCMP	South African Council for Project and Construction Management Professions

Abbreviation	Meaning given to the abbreviation
SANS	South African National Standards
SAT	Systematic Approach to Training / Site Acceptance Test
SD&L	Supplier Development and Localisation
SGR	Steam Generator Replacement
SHE	Safety, Health and Environment
TAF	Temporary Alteration Form

2.2. Definitions

Term	Definition
Action of the <i>Project Manager</i>:	The actions the <i>Project Manager</i> has to perform in fulfilling their express duties, under the ECC.
Construction Health and Safety Agent:	A competent person who acts as a representative for the <i>Contractor</i> in managing health and safety on a construction project for the <i>Contractor</i> and who has satisfied the registration criteria of the South African Council for the Project and Construction Management Professions (SACPCMP) to perform the required functions.
Design:	The process of devising a system, component, or process to meet the <i>Employer's</i> requirements, as specified in the Scope of Work. It is a decision-making process, in which the basic science, mathematics and engineering sciences are applied to meet the objective for the <i>works</i> .
Include:	If "include" is followed by other, specific, words it will not be construed as limiting the meaning of the general words preceding it, save where the word "similar" precedes the word "include".
Including:	If "Including" is followed by other, specific, words will not be construed as limiting the meaning of the general words preceding it, save where the word "similar" precedes the word "including".
Level 1 Programme	Executive summary or a project master programme. This is a major milestone type of programme which highlights major project activities, milestones, and key deliverables for the whole project.
Level 2 Programme	Management summary or summary master programme. Maintained as a summarisation of the Level 3 programme. It depicts the overall project broken down into its major components by area.
Level 3 Programme	The project coordination programme or publication programme. The Level 3 programme is maintained as an integrated rollup or summary of the Level 4 programme activities. The programme consists of a set of integrated Level 4 programmes based on Critical Path Methodology (CPM).
Level 4 Programme	Execution programme or project working level programme. Level 4 is the detailed working level programme, and an expansion a Level 3 programme. This is the key working level CPM programme displaying the operations to be accomplished. The Level 4 programme may be for major sections of the work or for discrete processes such as a design, procurement and/or a commissioning etc.
Level 5 Programme	Detail programme. This is further breakdown of the activities of a Level 4 programme. This programme is used to map out the detailed tasks needed to coordinate day to day work in specific areas.
Non-Outage:	When the power station unit is operational.
Others:	The provision of technical guidance, technical coordination and technical leadership to the project, to ensure the services is suited for its designated purpose as stated in the Scope of Work. The SGR main <i>Contractor</i> , National Nuclear Regulator (NNR),

Term	Definition
	<i>Project Manager's</i> Authorised Inspection Agency (AIA), <i>Employer's</i> consultants and Consultants. The list is updated, by the <i>Project Manager</i> , each time a third parties contract is placed by the <i>Employer</i> or when Others change.
Outage:	When the power station unit is shut down for maintenance and refuelling.
Physical conditions	Referred under Core Clause 60.1(12) means natural physical conditions and man-made and other physical obstructions and pollutants, which the <i>Contractor</i> encounters at the Site when executing the <i>works</i> , e.g. sub-surface, hydro-logical conditions, etc., but excluding weather conditions.
Requirement	A condition or capability needed by a user to solve a problem or achieve an objective.
Shall, Should, May:	"Shall" is used to denote a requirement, "Should" a recommendation and "May" to denote permission in <i>Employer's</i> Scope of Work and <i>Employer</i> relevant specifications.
Takeover:	Process of transfer of responsibility for all or part of a project or its deliverables to the <i>Employer</i> from the <i>Contractor</i> .
Technical Lead:	The provision of technical guidance, technical coordination and technical leadership to the project, to ensure the <i>works</i> is suited for its designated purpose as stated in the Scope of Work.
Trigramme:	The <i>Employer's</i> labelling system that consists of a unit number followed by three alphabetic characters identifying a system, followed by a three-digit number, followed by two letters (bi-gramme) indicating a component.
COVID-19	Corona virus disease 2019 (The global pandemic)

3. Drawings

Drawing number	Revision	Title
SC105	Z	PAVED AREAS
SC101	F	OVERALL SITE LAYOUT AND DETAILS
KBA0003B041000-DOC-NO-136126	0	DECON WORKSHOP SURFACE BED SHEET 1 OF 3
SC05	A	Cladding detail

3.1. References

- [1] ISO 9001 Quality Management Systems
- [2] Act 85 of 1993 Occupational Health and Safety Act (OHSAct).
- [3] Act No 103 of 1977 - National Building and Regulation Act.
- [4] SANS 10142-1: The Wiring of Premises Part 1: Low Voltage Installations
- [5] SANS 10142-2: The Wiring of Premises Part 2: Medium Voltage Installations
- [6] OHSAct: Occupational Health and Safety Act (85 of 1993) - Regulation 2281, Environmental Regulations for Workplaces, 1987
- [7] SANS 10114-1:2005 Part 1: Interior lighting - Artificial lighting of interiors

- [8] SANS 984: IEEE guide for performing arc-flash hazard calculations
- [9] SANS 1186-1: Symbolic safety signs Part 1: Standard signs and general requirements
- [10] SANS 1186-5: Symbolic safety signs Part 5: Photo luminescent signs.
- [11] SANS 10400-T: The application of the National Building Regulations Part T: Fire protection
- [12] KSA-022 Control of Compressed Gases.
- [13] SANS 10087 Handling, Storage, Distribution and Maintenance of Gases in Domestic, Commercial and Industrial
- [14] KSA-097 Fire Prevention Standard for Stores and Storage Practise.
- [15] 331-170: Requirements for Protective Coating for Use At KPNS
- [16] SANS 1186-1: Symbolic safety signs Part 1: Standard signs and general requirements.
- [17] SANS 1186-5: Symbolic safety signs Part 5: Photoluminescent signs.
- [18] ISO 16069:2004(en): Graphical symbols — Safety signs — Safety way guidance systems (SWGS)
- [19] SANS 10263-0:2015. The warehousing of dangerous goods
- [20] SANS 10228:2012. The identification and classification of dangerous goods for transport by road and rail modes
- [21] KAA-502 Project Management Process for New Building and Civil Projects and Changes to existing building and Civil Projects at Koeberg Nuclear Power Station
- [22] 238-103: Supplier Quality General Requirements
- [23] KSA-119: Management and Control of Supplemental Workers Koeberg Nuclear Power Station
- [24] KSA-011: The Requirements for Controlled Documents
- [25] 331-206: NE design service classification
- [26] Act No 48 of 2000 Project and Construction Management Profession Act
- [27] Public Finance Management Act No 1 of 1999
- [28] 331-86: Design Changes to Plant, Plant Structures or Operating Parameters
- [29] 0001/96Q rev0: Offsite and onsite inspection services
- [30] KBA 1222 F000 001 Equipment Marking
- [31] SGR-URS-09-16: Replacement of KNPS Steam generators – Support Facilities
- [32] Fitness for duty
- [33] Emergency Mustering, Accountability and Evacuation
- [34] ESK AM AAA 1: Corporate Identity Manual
- [35] 331-170 Requirements for Protective Coatings for Use at Koeberg Nuclear Power Station

4. Constraints on how the *Contractor* Provides the Works

4.1. Meetings

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

4.1.1. Project kick-off meeting

Interval	Location	Attendance by:
Once	KOU	<i>Employer, Contractor, Supervisor, and Others as required</i>

4.1.2. Risk reduction meetings

Interval	Location	Attendance by:
Adhoc	KOU or Tele / Video Conference	<i>Employer, Contractor, Supervisor, and Others as required</i>

4.1.3. Operational meetings

Interval	Location	Attendance by:
Monthly during contract period	KOU or Tele / Video Conference	<i>Employer, Contractor, Supervisor</i>

An operational meeting is held, by tele- or video conference if necessary, between the *Employer* and the *Contractor's Project Manager* to monitor and control the design, manufacturing and planning processes. Typical topics for discussion at this meeting will include *Contractor's* reporting on the following:

- Review of Project Progress (Programme) with specific focus on Key Dates and interim milestones;
- Key Risks (threats) and Issues and, where applicable, identify and agree on associated preventive/contingent and recovery actions;
- Review of Actions List;
- Review of Communications.

4.1.4. Implementation meeting for specific progress/QC and feedback

Interval	Location	Attendance by:
Daily during implementation	KOU	<i>Contractor and Supervisor</i>

The implementation meeting is held between the *Contractor* and *Supervisor's* implementation support team, to report on implementation progress and review any risks, issues and *Employer* actions that need to be resolved in order to ensure smooth implementation of the *works*.

The *Contractor's* QC representatives provide reports from each meeting to the *Employer's* project QC Group. This report will cover:

- Scheduled QC inspections for the period identified in the meeting.
- Any new QC related issues identified since the last report, its status and action plan for resolution.
- Status and progress on previously reported quality issues.

4.1.5. Meetings of a specialist nature

Interval	Location	Attendance by:
Adhoc	Any	<i>Employer's personnel, the Contractor, the Supervisor, and Others as required</i>

Meetings of a specialist nature may be convened by persons and at times and locations to suit the Parties, the nature and the progress of the works.

4.1.6. Post-implementation meeting for project feedback and review

Interval	Location	Attendance by:
Post unit implementation	KOU	<i>Employer, Contractor Senior Manager (not the Contractor's Project Manager), Contractor's Project Manager, Supervisor, Employer's personnel, Others as required</i>
The post-implementation meeting is held between the <i>Employer, Contractor</i> senior management, <i>Supervisor</i> , Outage control centre management and other line groups, to report on implementation issues and reviews. Share lessons learnt in order to ensure smooth implementation on the next implementation phase.		

All meetings are recorded using minutes or a register prepared and circulated by the person who convened the meeting. Records of these meetings shall be submitted to the *Employer* by the person convening the meeting within five days of 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. Confirmation of contract communications during operational meetings will, however, be considered as formal acknowledgement of receipt of a contract communication.

4.2. Quality Assurance

4.2.1. Classification

The classification of the items is 0100/90Q (Q4/L3). The classification of the service is 0001/96Q (Q3/L3).

The *Contractor* complies with the general quality requirements of 238-103 Revision 2. Additional quality requirements are provided in the URS 240-163930588

The *works* are subject to a Quality Assurance Program in accordance with Section 3.2 of 238-103 Revision 2. A Quality Plan, specific to each manufacturing and installation activity, is to be established and submitted to the *Project Manager* for acceptance before commencement of any work.

The *Contractor's* quality assurance system is also subject to the acceptance by the *Employer*.

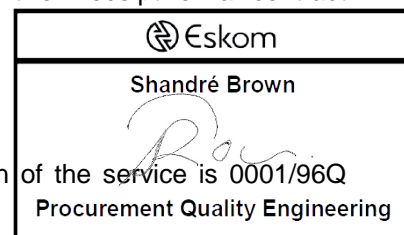
The *Contractor* ensures that any *Subcontractor* employed by him has and implements a Quality Assurance Programme to meet the quality assurance requirements of the *Employer*.

The *Contractor* controls and supervises his *Subcontractor's* quality plans (including manufacturing quality plans). The *Contractor* reviews and accepts all plans, prior to submission to the *Project Manager*, for his acceptance. All *Subcontractor* components are verified by the *Contractor's* technical representative(s) before use or installation.

If the *Subcontractor* has to perform work in terms of the *Contractor* compiled quality plans, the *Subcontractor* also reviews and accepts the use thereof.

The *Employer* reserves the right to at any time audit and/or monitor the control between the *Contractor* and *Subcontractor*, as well as the performance of the *Contractor's* *Subcontractor*. Such audits are done by prior notification and in liaison with the *Contractor*.

The *Contractor* ensures that his staff and *Subcontractors* are conversant with the content of the *works* as defined by the Works Information, quality control plans/work plans and work instructions.



Contractor's authorisation of personnel (including *Subcontractor* personnel), applied for Providing the Works, is made available to the *Project Manager* prior to the start of the work for which the authorisation is done.

The *Contractor* retains records of internal reviews performed by its personnel. The records provide objective evidence of who performed the review and the level of detail of the review. This requirement is also applicable to review of *Subcontractor* deliverables. Where considered necessary, the *Project Manager* may request such review records and the *Contractor* provides such information without limitation.

Where considered necessary, the *Project Manager* may request the root cause analysis and associated corrective action plan that the *Contractor* has established to deal with non-conformances / issues and / or Defects related to Providing the Works. The *Contractor* provides such information without limitation.

4.2.2. Specification Process Control

All material shall conform in respect to quality, manufacturing, testing, and performance with the requirements of SANS.

Materials manufactured in South Africa shall as far as possible be used, and where applicable shall bear the SANS mark. Imported materials shall comply with the requirements of the appropriate B.S. or I.E.C. specification and all relevant standards as listed in the specification. Waivers are to be obtained from Eskom in writing.

4.2.3. QA Programme

The *Contractor* shall submit all documentation (QCP's, specifications, procedures, etc.) related to quality assurance to the *Employer* for review by the *Employer* prior to any manufacturing taking place.

The *Employer* or his appointed quality assurance representative reserves the right of access to Designer's records for the purpose of inspections or audits. The contact details of the quality assurance representative are obtainable from the *Employer*.

4.3. Health and Safety

4.3.1. Nuclear Safety

The *Contractor* promotes a culture that is dedicated to continuously striving to enhance nuclear safety.

The *Employer* defines appropriate safety objectives for the KOU, and the *Contractor* is also responsible for meeting those objectives, instilling a philosophy of personal excellence, and timely identification and resolution of safety problems.

The *Contractor* is responsible for continuously pursuing enhancements to safety-not just complying with a minimal set of legal requirements.

4.4. Health and safety risk management / SHE Specification

The *Contractor* complies with the *Employers* SHE specifications reference 32-136(0) and requests it from the *Employer's Representative* on Site establishment.

- A Safety, Health, and Environment (SHE) plan shall be submitted to the *Employer's Representative* for the works performed on the Site by tender closing.
- A project specific SHE file is to be created by the *Contractor* and submitted together with a completed copy of the Construction Regulations Checklist to the *Employer's Representative* for acceptance within 2 (two) months of the *starting date* following which the *Contractor* maintains and updates the file.
- Provide a copy of current health and safety policy by tender closing.
- All work carried out by the *Contractor*, is done in strict accordance with all relevant safety Laws and procedures.

- The *Contractor* provides the *Employer's Representative* with the following before work at the Site commences:
 - Health and Safety plan
 - Letters of appointment
 - Risk assessments of the tasks
- It is to be noted that before any work can commence on Site, the *Contractor* must have performed a detailed risk assessment of the *works* and/or the work area where work is to be performed. The risk assessment is documented and handed the *Employer's Representative* for acceptance. The *Contractor* discusses the risk assessment with all employees involved with the *works*. The *Contractor* ensures that:
 - At least one team member is a qualified first aider with a valid level 2 first aid certificate.
 - All operators of Equipment have valid training certificates from an accredited training company to operate such equipment.
 - All employees working on the Site wears the mandatory Personal Protective Equipment (PPE), such as hard hat (with chin strap), safety boots, ear plugs, COVID-19 related PPE and safety glasses.
- Safety induction and environmental training pertaining to the Site will be conducted by the *Employer's Representative*.

4.4.1. Incident Management

The *Employer's* procedure 32-95 - Environmental, Occupational Health and Safety Incident Management Procedure, states the requirements for the effective management of incidents that may occur or could result in, occupational diseases/illnesses, fatalities, injuries, near misses, and/or environmental damage.

4.4.2. Reporting of SHE incidents

All incidents occurring on-site while Providing the Works shall be reported, to Supervisor, as soon as practicable but not later than the end of that shift (in terms of KAA-688) and in the event of an incident as defined in terms of Section 24 of the OHS ACT, 85 of 1993 where someone dies, becomes unconscious, suffers the loss of a limb or part of a limb is also reported immediately to the Department of Labour by the *Contractor*.

The following are requirements for the *Contractor*, in terms of KAA – 688 -The Corrective Action Process):

- In the event of any incident or accident, a flash report is completed by the *Contractor* and submitted before end of shift or within 24hrs to the *Employer* and the Supervisor.
- The *Employer's* template for the flash report is included in the *Contractor's* health and safety plan.
- The Supervisor raises a Condition Report (CR) and capture the details on Devonway.
- Where applicable, the Supervisor will mobilise an incident investigation team who will investigate the incident within 7 days, complete the *Employer's* corporate documentation, indicating the root causes, corrective actions and recommendations for submission to the *Employer's* OH&S Department.
- The *Contractor* must submit proof of corrective action within pre-determined due dates to the *Employer's* OH&S Department, who will then close-out the Problem Notification (PN) on the Electronic Problem Management System (EPMS). Dependant on the incident. it may also be required that the *Contractor* presents the corrective action to the *Employer's* operating safety committee (KOSC).

4.4.3. Investigation and recording of incidents:

All incidents are investigated by the *Contractor* with the assistance of the *Supervisor*, to establish the direct, indirect and root cause of such incidents as well as any reactive/preventative measures required and implemented to prevent a re-occurrence of such future incidents. Any such incident is recorded by the *Contractor* as required by General Administrative Regulation 9(1) of the OHS ACT, 1993. The *Contractor* complies with the timeframes of investigating incidents as required in terms of General Administrative Regulation 9(2)

4.4.4. Environmental incidents

Environmental incidents could include but are not limited to:

- Release of effluent to the environment
- Non-compliance to station water permit conditions
- Non-compliance to station sewage permit
- Non-compliance to waste site permits
- Illegal dumping of waste
- Environmental Impact Assessments (EIA) not undertaken for projects
- Non-compliance to EIA Record of Decision (ROD)
- Cutting down of protected plant species
- Harming of protected animal species

The Supervisor will inquire into all incidents including near-misses during *Contractor* audits.

4.4.5. Health and safety plan

The *Contractor's* health and safety plan is the *Contractor's* proposal of how the work will be carried out considering the hazards expected and procedures.

The *Supervisor* reviews and accepts the health and safety plan according to EPC 32-136. The construction regulation checklist with the required information must be included in the health and safety plan.

The *Contractor* ensures that contents of the health and safety plan for the project shall include at least:

- A copy of the principal *Contractor* appointment letter.
- The scope of works /description of the work for which the *Contractor* was appointed.
- The *Contractor's* risk assessment including control/mitigation measures to address all the risks identified.
- The risk based legislative appointments made, by the *Contractor*, as required by the construction regulations.
- The risk based legislative checklists and registers to be completed, by the *Contractor*, as required by the construction regulations.
- Certified copies and proof of competencies of all *Contractor* appointees i.e. training certificates, permits, medical certificate of fitness and curriculum vitae where required.
- Copies of identity documents for *Contractor's* employees / workers appointed for the works.
- Accident/incident registers to be kept, by the *Contractor*, in the event of any incidents, including near misses. A copy of the *Employer's* flash report template is included in the *Contractor's* health and safety plan, should it be required in the event of an incident.
- Any waste management and pollution prevention by the *Contractor* – where required permits for dumping/incineration at authorised facilities. The *Contractor* must consult and comply with the *Employer's* applicable waste procedure KAE 012.
- Proof of the *Contractor's* registration and letter of good standing with COID or other registered insurer, Construction Industry Development Board (CIDB) and/ or Electrical *Contractors* Board.
- A SHE Programme, compiled by the *Contractor*, using the template provided in KAA-768 rev 4
- The Supervisor's letter of acceptance of the health and safety plan is added as soon as it is obtained.

The *Contractor* submits the health and safety plan, 30 days prior to commencement of any part of the works on Site, to the Supervisor, who verifies whether contents for acceptance. The *Contractor's* health and safety plan will be returned to the *Contractor*, should it not contain the required information or where the necessary permits have expired.

The accepted *Contractor's* health and safety plan must be on the Site. Periodic audits are conducted to ensure that the *Contractor's* health and safety plan is implemented and maintained as the project progresses. Refer Construction Regulation 4(1)(d).

When the *Contractor* is required to review and update documentation on the *Contractor's* health and safety plan, the plan must be re-submitted to the *Supervisor* for acceptance.

4.4.6. Health and safety file

The *Contractor's* health and safety file is separate from the *Contractor's* health and safety plan. The *Contractor's* health and safety file is progressively populated with checks and inspections, as indicated in the *Contractor's* health and safety plan. Any drawings, designs, materials used, structural integrity testing and any other similar information applicable to the project will be placed on the *Contractor's* health and safety file.

The *Contractor's* health and safety file must be available on request and should be handed over to the *Supervisor*, prior to the Completion Date (Refer Construction Regulations 5(7) and 5(8)).

Depending on the nature of the *works* and detail of the information on the *Contractor's* health and safety file, e.g. asbestos work where there is a requirement for medical surveillance of workers who will be exposed to asbestos, it is recommended that the *Contractor* keeps these records for forty years, in terms of Asbestos Regulations 16(f).

Where the *Contractor's* employees / workers are exposed to hazardous chemical substances and where a medical surveillance was required, it is recommended that the *Contractor* keeps these records for thirty years, as stipulated under the Hazardous Chemical Substances Regulations 9(f).

The *Contractor* ensures that all other medical surveillance requirements in terms of the OHS ACT, where applicable, is complied with for the *Contractor* and Sub-*Contractor* organisations.

The *Contractor's* health and safety file is audited by the *Supervisor* or his delegate, to ensure that work is being carried out and the necessary checks and inspections are conducted in accordance with the *Contractor's* plan.

The minimum contents of a SHE File are indicated in EPC 32-136.

4.4.7. Risk assessments

The *Contractor* appoints a competent risk assessor, in writing, to perform risk assessments (Construction Regulation 7(1)). The *Contractor* is however required to use the *Employer's* methodology and provide a project specific risk assessment with the *Contractor's* health and safety plan, submitted for review and acceptance by the *Supervisor*. The *Contractor's* risk assessment includes a monitoring and review plan as required by Construction Regulation 7(1). No work may commence on Site, until the *Contractor's* risk assessment has been accepted by the *Supervisor*.

The *Contractor* ensures that ergonomic hazards have been identified evaluated and addressed, as required by Construction Regulation 7(6). Hazards the *Contractor* must consider include:

- improper lifting techniques,
- continuous repetitive movements with body parts in extreme postures; and
- poor grips on tools or carrying containers with no handles.

Whenever changes to methods of working / manufacture or materials are introduced, the *Contractor's* risk assessment is reviewed, including controls and mitigation measures and submitted to the *Supervisor* for review and acceptance. Following acceptance, the *Contractor's* risk assessment must be placed in the health and safety plan, for implementation.

The *Employer's* risk assessment chart is completed, by the *Contractor*, during the *Contractor's* pre-job briefs and displayed at the entrances to those areas of the Site. The template is available from the *Supervisor*.

The *Contractor* ensures that all *Contractor's* employees are informed, instructed and trained by a competent person regarding the hazards, risks and related work procedures. These employees must carry proof of such training, for the duration of the project. (Construction Regulation 7(9)).

With regard to environmental considerations, the *Contractor* ensures that any aspect from a product or activity that might have an impact on the air, water, marine and soil or which may have the potential to cause harm to the environment is addressed in the *Contractor's* risk assessment, in order to avoid any environmental incidents while Providing the *Works*. Where such impact cannot be avoided, the *Contractor* ensures that the necessary steps are taken to minimise and remediate such impact. (refer to Section 28 of National Environmental Management Act, 1998).

Lists of expected hazards and risks at the KOU have been referenced in EPC 32-136, as well as the Occupational Health Services Job Specification (reference KfV-SR-004), outlining the required physical attributes and personal protective safety equipment. Some known hazards include:

- Safety: live electrical equipment, working at heights, moving vehicles, floor openings, slippery floors, unguarded machinery, sharp tools, exposed blades, suspended loads, overhead pipelines, floor level pipelines, faulty portable electric tools, strong winds, poorly maintained high pressure vessels, untrained staff doing hot work.
- Health: radiation exposure, dust, noise, snake/spider bites, bee stings, chemical fumes and splashes, asbestos lagging, prolonged awkward postures.
- Environmental: air emissions, marine spill, ionising radiation being released into environment, chemicals leaching into ground/soil, diesel/petrol spill, clearing of vegetation, disturbance of habitat.

4.4.8. Accident - Incident Reporting Protocol

The reporting of accidents/incidents is a legal requirement as outlined in the OHSAct, section 14 (e)

The *Employer's* corporate procedure 32-95 (Rev 6) addresses the process that has to be followed by all Parties. The following table indicates the actions required and the timeframes in which to act.

Incident	Action	Timing
Near Miss	<ul style="list-style-type: none"> • Condition Report (Devonway). • Near Miss Card • Flash Report. No investigation required unless a trend develops or priority rating is high or extreme as per Procedure: 32-95, Rev 6.	Report incident before end of shift.
Property Damage	<ul style="list-style-type: none"> • Condition Report (Devonway). • Flash Report. • 240-62989893 - Vehicle Accident Reporting form No investigation required unless a trend develops or rating is high or extreme as per 32-95, Rev 6.	Report incident before end of shift.
First Aid	<ul style="list-style-type: none"> • Condition Report (Devonway) • Flash Report. • Minor Injury form. • 240-77046688-<i>Employers</i> Investigation Report (Complete sections: 1, 2, 6, 7, and 10). Accident/Incident investigation required as per 32-95, Rev 6.	<ul style="list-style-type: none"> • Report incident before end of shift. • Investigation completed within 7 days • Investigation report to be completed within 30 days.
Medical Injury	<ul style="list-style-type: none"> • Condition Report (Devonway). • Flash Report. • 240-77046688-<i>Employer's</i> Investigation Report (complete sections: 1, 2, 6, 7, 10). • <i>Employers</i> Report (WCL II). • Resumption Report. • Annexure 1 Note: 1st medical, progress and final medical reports to be issued by medical practitioner	<ul style="list-style-type: none"> • Report incident before end of shift. • Investigation completed within 7 days. • Investigation report to be completed within 30 days.

Incident	Action	Timing
LTI's	<ul style="list-style-type: none"> Condition Report (Devonway). Flash Report. 240-77046688-<i>Employers</i> Investigation Report (full document). <i>Employers</i> Report (WCL II). Resumption Report. Annexure 1 <p>Note: 1st medical, progress and final medical reports to be issued by medical practitioner</p>	<ul style="list-style-type: none"> Report incident before end of shift. Investigation completed within 7 days. Investigation report to be completed within 30 days.
Fatality or Occupational Diseases	<ul style="list-style-type: none"> Condition Report (Devonway). Flash Report. 240-77046688-<i>Employers</i> Investigation Report (full document). <i>Employers</i> Report (WCL II). Resumption Report. Annexure 1 <p>Note: 1st medical, progress and final medical reports to be issued by medical practitioner.</p>	<ul style="list-style-type: none"> Report incident before end of shift. Investigation completed within 7 days. Investigation report to be completed within 30 days.

4.5. Employer's lifesaving rules

The *Contractor* complies with the *Employer's* five rules as stipulated in the *Employer's* Management Directive 32-421. The *Employer* takes a ZERO TOLERANCE stance to violation of these rules:

- Rule 1: Open, isolate, test, earth, bond, and/or insulate before touch.
- Rule 2: Hook up at heights.
- Rule 3: Buckle up.
- Rule 4: Be sober.
- Rule 5: Permit to work.

4.6. Environmental Constraints and Management

The *Contractor* shall comply with the following environmental criteria and constraints:

4.6.1. General requirements

The *Contractor* complies with all the Environmental laws as stated in NEMA – South Africa National Environmental Management Act – Legislation and Environmental Acts and EIA - Environmental Impact Assessment Regulations Laws South Africa.

4.6.2. Storm water

No washing of chemicals shall be drained into the stormwater reticulation system (this includes but not limited to drains, culverts and channels).

4.6.3. Waste

Chemical waste must only be disposed inside a marked waste skip or container on Site. No waste mixing on site will be allowed.

4.6.4. Oil usage during construction

The oil to be used on site by the *Contractor* for machineries must be contained within the bund structure. This will eliminate any spillage on the ground that can be washed away into the storm water draining system.

4.6.5. Dust

The *Contractor* must properly control dust on Site by sprinkling dusty areas with water. Anyone within the construction area with such hazard must be supplied with dust masks.

4.6.6. Noise

The *Contractor* must ensure that no excessive noise making machineries are used on Site. If such machinery is to be used, written approval must be obtained from the *Employer*. The *Contractor's* application to use such machinery must be accompanied by a detailed plan indicating the safety plan and times interval for the usage of the machinery.

4.6.7. Indigenous Plants

The *Contractor* must ensure that no plant shall be removed from the Site without any approval from the *Employer*. All the plants shall be protected and preserved during the implementation phase on site.

4.6.8. Historical interest objects

No historical interest objects may be removed from the site without the knowledge of the *Employer*.

4.6.9. Plant and Materials

The *Contractor* shall ensure that all Plant and Materials, services and work supplied in terms of this contract conform to all applicable environmental legislation and in the *Contractor's* residing country and to the *Employer's* environmental specifications. The *Contractor* ensures that the *Employer's* chemical restrictions and controls at Koeberg (CRACK) programme (KAA-751) are adhered to.

The design document produced by the Designer will specify all installation activities for the successful achievement of the URS requirement (240-16515156519).

4.7. People

The *Employer's* standard for management and control of supplemental workers at KOU is document in KSA-119 Rev 2.

The *Contractor* employs in and about the Provision of the *Works* only such persons that are careful, competent and efficient in their several trades and callings, to achieve nuclear safety, and the *Employer* reserves the right to object to and require the *Contractor* to remove from the *works*, forthwith, any person employed by the *Contractor* in or about the Provision of the *Works* who, in the opinion of the *Employer*, misconduct's himself or is incompetent or negligent in the proper performance of his duties and such person is not again employed for the *works* without the written permission of the *Employer*.

The *Contractor*, in and about the Provision of the *Works*, provide evidence of skills assessment (including qualifications) for all his staff. The *Contractor*, his QC and *Supervisors* are required to present SAQA approved certificates (or equivalent), for the position that they fulfil. Any personnel that do not meet the panel requirements will have their access to site revoked. For mechanical contracts, the *Contractor* must demonstrate ASME construction and maintenance/testing skills, knowledge and oversight.

All engineering work is performed by suitable qualified and experienced individuals. The *Contractor* demonstrates to the *Employer's* Representative, for his acceptance, that the assigned persons fulfil these requirements and submits a brief CV of each engineer in and about the Provision of the *Works*. If design work is carried out in jurisdictions where engineering work is governed by a formal professional body, the engineers taking responsibility for the work must be registered as professional engineers with that body.

The *Contractor* ensures that the *Contractor's* employees are reasonably fluent in the language of the contract.

The *Contractor* maintains at all times a harmonious relationship with and co-operates with the *Employer* and all its suppliers and sub-suppliers or their employees who may be involved.

Key personnel

The *Contractor* ensures that all key personnel assigned to the *works* meet the requirements of the *Employer's* security and medical qualifications as well as training and experience generally required by similar utilities elsewhere in respect of similar work. Where required, these staff members also meet such requirements as the National Nuclear Regulator may stipulate from time to time.

Contractor Supervisors are deemed to be key people and are dedicated to each project.

The *Contractor* provides orientation and technical training for all key personnel in accordance with the requirements of the *Employer's* Radiological Safety Regulations, the *Employer's* Industrial Safety Programme, and in general the whole framework of plant rules and regulations which may be in force at the *Employer's* Site from time to time which is available on request.

The *Contractor* regularly reports person hours worked to the *Employer's* Representative on a monthly basis.

Due to the nature of an outage, the *Contractor* is required to provide the *works* on a 24-hour shift. The normal shift regime during an outage is from 7am to 7pm and then 7pm to 7am.

The *Contractor* must work on weekends and public holidays.

4.8. Supervision

The South African Construction Regulations of the OHS Act require the *Contractor* to appoint a full-time competent employee to supervise the performance of construction work. The *Contractor* (as Principal *Contractor* in terms of the OHS Act Construction Regulations therefore appoints, in writing, a competent full-time construction *Supervisor* and where required an assistant *Supervisor*, clearly stipulating all duties relating to the supervision of the particular project.

The *Contractor's* construction *Supervisor* must be registered as a professional construction manager with the SACPCMP in terms of the Project and Construction Management Act, Act 48 of 2000.

The *Contractor* may appoint additional people (assistant construction *Supervisor/s*) to assist the construction *Supervisor* to perform certain of his functions, but this does not relieve the construction *Supervisor* of his or her responsibilities under the regulations. If the *Contractor* has not appointed additional people to assist the construction *Supervisor*, and an inspector determines that the construction *Supervisor* needs assistance, he can instruct the *Contractor* to do so, at no additional cost to the *Employer*.

No work may be performed, by the *Contractor*, unless in the presence of the *Contractor's* construction *Supervisor* or assistant construction *Supervisor*. The appointed project management personnel of the *Contractor* must comply with the Project and Construction Management Act, Act 48 of 2000 and proof of registration at the SACPCMP of these employees must be submitted to the *Employer* prior to any construction work. Proof of registration at an equivalent professional body of foreign workers must be supplied by the *Contractor* to the *Employer*.

The *Contractor's* construction *Supervisor* and assistant construction *Supervisor* shall be fully conversant with the contents of the *Contractor's* health and safety plan including the following and shall stop any or all work which is not in line with these provisions:

- risk assessments,
- method statements, and
- fall protection plan.

4.9. Construction health and safety practitioners

The *Contractor's* construction health and safety agent (as a specified category in terms of section 18 (1) (c) of the Project and Construction Management Professions Act No. 48 of 2000) is appointed to ensure that the *Contractor* complies with its statutory duties under the Occupational Health and safety Act (Act No. 85 of 1993) and applicable regulations such as the Construction Regulation, etc.

4.10. Use of standard forms

4.10.1. General requirements

Each instruction, certificate, submission, proposal, record, acceptance, notification and reply is communicated in a form which can be read, copied and recorded and in the language of the contract, within the period for reply or any other period agreed between the parties prior to its due date.

Any such communiqué must bear the signature of the author; emails therefore do not conform except when used as a transmittal medium.

4.10.2. Minimum requirements

- All documents shall be written in 3rd person;
- All documents shall be in simple and clear English; and
- Always reference to applicable NEC clause under (or as a result of) which it is communicated.

4.10.3. Use of standard forms

The *Employer's Representative* and the *Contractor* will use the standard NEC templates listed below:

- Delegation by *Employer*
- Access
- Early Warning by *Contractor*
- Early Warning by *Employer's Representative*
- Completion Certificate
- Notification of Defect by *Employer's Representative*
- Defect Certificate
- *Contractor's* assessment of amount due
- Compensation Event notification by *Contractor*
- Compensation Event Request for Quotation by *Employer*
- Termination Certificate
- Acceptance submission by *Contractor*
- *Employer's Representative* Instruction
- *Employer's Representative* summary of amount due

4.10.4. General requirements

Each instruction, certificate, submission, proposal, record, acceptance, notification and reply is communicated in a form which can be read, copied and recorded and in the language of the contract, within the period for reply or any other period agreed between the parties prior to its due date.

Any such communiqué must bear the signature of the author; emails therefore do not conform except when used as a transmittal medium.

4.10.5. Minimum requirements

- All documents shall be written in 3rd person;
- All documents shall be in simple and clear English; and
- Always reference to applicable NEC clause under (or as a result of) which it is communicated.

4.11. Contractual communication

All contractual letters make reference to:

- the contract number that is issued by the *Employer* (normally a 46000xxxxx number for Eskom Holdings (SOC) Limited);
- the title of the contract;
- the specific contract clause under which the communication is issued; and
- a unique letter reference number.

The unique reference numbers shall be used for written correspondence between the *Employer* and *Contractor* and vice versa are as follows:

- From the *Employer* to the *Contractor* the reference number is 46000xxxxx E/C 0xxx.
- From the *Contractor* to the *Employer* the reference number is 46000xxxxx C/E 0xxx.
- With xxx referring to the specific contract number and the next sequential letter (channel) number.
- All contractual letters are printed on official letter heads with the latest corporate / company identity, list of directors / members and VAT registration number.

- Each contractual letter deals with only one specific issue at a time and where letters are submitted electronically, the title of the letter is reflected in the subject line and only one letter is submitted per email.
- All contractual letters are signed by the Sender.
- Formal transmittal of Contractual letters is either by means of an e-mail, registered mail and/or fax with fax record cover slip. The sender must request and receive receipt confirmation.
- Contractual letters may be scanned and transmitted electronically by email in order to speed up the flow of information, however, this is not considered as a formal means of transmittal unless the recipient acknowledges receipt.
- Contractual letters are copied to the appointed Document Control Clerks in order to capture the communication and file as a record.

An example of how documents will be controlled is provided below:

Document Name	Originator	Document Identity	Full Document Identity
Early Warning	<i>Employer</i>	EW	46000XXXX E/W 0001
<i>Employer</i> Instruction	<i>Employer</i>	PMI/EI	46000XXXX E/C 0001
Request for Information	<i>Contractor</i>	RFI	46000XXXX C/E 0001

4.12. Compensation Events

4.12.1. Concurrent delay

If the *Contractor* incurs additional costs that are caused both by *Employer* delay and concurrent *Contractor* delay, then the *Contractor* may only recover compensation to the extent the *Contractor* is able to separately identify the additional costs caused by the *Employer* delay from those caused by the *Contractor* delay. If the *Contractor* would have incurred the additional costs in any event as a result of *Contractor* delays, the *Contractor* is not entitled to recover those additional costs.

4.12.2. Mitigation of delay

The *Contractor* has a duty to mitigate the effect, of *Employer* risk events, on the *works* and the *Contractor* does all it reasonably can to avoid an impact on the Prices. The duty to mitigate does not extend to the *Contractor* to adding extra resources or to work outside its planned working hours.

4.12.3. Quotation

The *Contractor* provides quotations for compensation events detailing the following items as a minimum:

- introduction;
- executive summary;
- contractual basis of compensation event (Refer to ECSC Core Clause 60.1);
- details of the compensation event;
- assessment of compensation event (ECSC Core Clause 63);
- Conclusion.

For compensation events to be implemented, the *Employer* requires the *Contractor* to sign a compensation event register form. For any payments required as a result of the compensation event, the *Contractor* is required to submit the signed compensation event register form, at latest, prior to the 15th of the month in which any associated amount should be assessed. This is to allow sufficient time for the *Employer* to load the associated costs onto its SAP system.

It is specifically stated that the *Employer* will not accept any forecasted payments relating to "compensation event acceptance".

4.13. COVID-19 Pandemic

The spread of the COVID-19 Pandemic constitutes a Force Majeure event. The principal cause of the introduction of preventative measures by the government is the spread of the COVID-19 Pandemic.

Hence the primary basis of any claim from the *Contractor* should be the spread of the COVID-19 Pandemic, i.e. a Force Majeure event, as opposed to the introduction or amendments to the existing legislation and or regulation.

The coronavirus outbreak could also result in a number of the compensation events being triggered under clause 60.1, such as the following examples:

- 60.1(2) – the *Employer* does not allow access to part of the Site by the date shown on the Accepted Programme.
- 60.1(3) – the *Employer* does not supply something by the date for providing it shown on the Accepted Programme.
- etc.

4.13.1. Invoicing and payment

In terms of core clause 63 the *Contractor* assesses the amount due and applies to the *Employer* for payment. The *Contractor* applies for payment with a tax invoice addressed to the *Employer* as follows:

4.13.2. Assessments

The *Contractor* includes in the Monthly Planning Report the proposed assessment information. Failure to submit such information on the assessment date will result in the *Employer* making his own assessment, based on available information.

The *Contractor* submits, separately, all documentation and certification in support of the proposed assessment information.

4.13.3. Invoices and payment arrangements

The *Contractor* ensures that the requirement in terms of Section 20(4)(C) of the Value Added Tax Act 89 of 1991 as amended by the Revenue Laws Amendment Act 45 of 2003, that the VAT registration number of the recipient of the tax invoice, appears on the said tax invoice in order for the invoice to fully comply with the requirements of a valid invoice for VAT purposes as contained in the said Section 10(4)(C), is adhered to. No payment will be made on tax invoices not fully meeting this requirement.

The *Employer's* VAT Registration Number is **4740101508**

All invoices are marked for the attention of:

The Accounts Payable Section
Koeberg Operating Unit
Private Bag X10
Kernkrag 7440
South Africa

Particulars to be included on the Contractor's Tax Invoice:

- The name and address of the *Contractor*
- The date of the invoice
- An invoice number
- *Contractor's* VAT registration number (if applicable)
- *Employer's* VAT registration number
- Reference to Contract and/or SAP Task Order number
- The amount paid to date
- The price adjustment for inflation (where clause X1 is applicable)
- The value of the invoice split into payments as per the *activity schedule*
- A descriptive title of the service covered by the Invoice and/or the Contract's assessment number

To enable payment against each applicable SAP generated Task Order the *Employer* and the *Contractor* must sign next to each line acceptance of the service, Plant and Materials or goods delivered on the applicable SAP generated Task Order. The signed copy of this SAP generated Task Order is promptly returned to the *Employer*.

Payment is made by means of electronic transfer. The *Contractor* therefore provides his banking details to the *Employer* within one week of the Contract Date.

The *Contractor* attaches the detail assessment of the amount due to each tax invoice showing the Price for Work Done to Date for each item in the Price List for work which he has completed.

4.13.4. The *Employer's* SAP task order system

A SAP task order, together with an instruction from the *Employer* to perform a Task, is the *Employer's* notice to the *Contractor* to carry out a Task.

The *Contractor* does not perform any work without a SAP task order accompanying the *Employer's* instruction to perform the Task.

If the *Contractor* performs work without a SAP task order the *works* is done at risk of non-payment by the *Employer*.

The *Employer* may not issue a SAP task order after the completion date of the Contract.

To enable payment the *Employer's* representative and the *Contractor* signs next to each line of the *works* on the applicable SAP generated task order. The signed copy of this SAP-generated task order is forwarded to the contracts Administration section on site at +27 21 550-5298/9.

4.13.5. Records of Defined Cost

The *Contractor* keeps all records, of amounts paid by him for people employed by the *Contractor*, Plant and Materials, work subcontracted by the *Contractor* and Equipment.

4.14. Pre-qualification

In accordance with Section (4) (1) (a) and (b) of the PPPFA 2017 regulations, the following specific condition of tender applies to this scope:

- (a) a tenderer having a stipulated minimum B-BBEE status level of contributor; Only tenderers with a status contribution level of 1 and 2 will be considered
- (b) an EME or QSE

A tender that fails to meet the pre-qualifying criteria stipulated is an unacceptable tender.

4.15. Local content and Production

The following stipulated minimum threshold for Local Production and Content must be achieved in full by the tenderer at tender stage:

Products / Material	Description of PPE	Threshold
Textiles, clothing, leather and Footwear (PPE)	• Overalls	100%
	• Safety boots and shoes	
	• Safety glasses	
	• Hard hats	
	• Masks	
Steel Products and Component for Construction	• Fabricated Structural Steel	100%
	• Joining/Connecting Components	
	• Frames	
	• Roof and Cladding	

	• Fasteners	
	• Wire Products	
	• Ducting and Structural pipework	
	• Gutters, downpipes & lauders	
	Steel Value-added Products	
	• Plates	
	• Reinforcing bars	

4.16. Job Opportunities

Tenderer to indicate number of Jobs to be created and/or retained from this contract.

4.17. Facilities to be provided by the *Contractor*

The *Contractor* provides all remaining facilities to provide the *Works*. Facilities provided by the *Contractor* are removed prior/or on Completion.

4.17.1. Publicity and progress photographs

Written acceptance from the *Employer* is required prior to:

- The issue of photographs, even if included in a report or submission, to a third party,
- Any publication on notice boards, advertising, media relations, and photography and progress photographs.

4.17.2. Tools, test equipment & consumables

	Activity description	Employer	Contractor	Requirements	Planning	Additional notes
•	Supply of standard tools as well as all specialised tools		X	<ul style="list-style-type: none"> • Specialised tools are supplied by the <i>Contractor</i>. • In the case where specialised tools are to be manufactured specifically for KOU, the <i>Employer</i> will take ownership of the tools after Completion of the <i>works</i> on the last unit. • After implementation on the first unit, the <i>Contractor</i> makes available the specialised tools for any maintenance that might be required by the <i>Employer</i>. 	As required	Any additional special tools furnished by the <i>Contractor</i> , which cannot be recovered (whether decontaminated or not), will be for the <i>Contractor's</i> account.
•	Supply of standard test equipment as well as all specialised test equipment (including specialised calibration tools and equipment).		X	<ul style="list-style-type: none"> • Specialised test equipment is supplied by the <i>Contractor</i>. • In the case where specialised test equipment has to be manufactured specifically for KOU, the <i>Employer</i> will take ownership of the tools after Completion of the <i>works</i> on the last unit. • After implementation on the first unit, the <i>Contractor</i> makes available the specialised test equipment for any testing that might be required by the <i>Employer</i>. 	As required	Any additional special equipment furnished by the <i>Contractor</i> , which cannot be recovered (whether decontaminated or not), will be for the <i>Contractor's</i> account.

	Activity description	Employer	Contractor	Requirements	Planning	Additional notes
•	Conclusion	X	X	• This activity group is complete upon take over.	In accordance with Accepted Programme	Deliverables: • Tools and test equipment that may not be recoverable.

4.17.3. **Contractor's Equipment**

All equipment and tools must be listed and specified before they are brought on Site. This list serves as evidence for removal permits upon Completion of the *works*.

4.17.4. **Equipment provided by the Employer**

No Equipment shall be provided by the *Employer*.

4.17.5. **Existing premises, inspection of adjoining properties and checking work of Others**

The *Contractor* is required to take the following special precautions whilst executing the *works*:

- Barricades between the work area and the remainder of the plant (if used) are kept in place and are respected at all times by the *Contractor's* staff.
- All existing services in the area of the *works* will be operational during the period of the contract and at no time will the *Contractor* be permitted to move or disturb these services without the approval of the *Employer*. It is a requirement of the contract that the *Contractor* perform the *works* within the constraints of these services.
- The *Contractor* ensures that all plant and associated systems are protected from sustaining damage, of any form whatsoever, during the *works*.
- The *Contractor* ensures that all existing services such as cables; instrumentation; cable trays; fire barriers and pipe work that may be damaged during installation have been identified and where possible relocated away from possible harm. However, due to the limited space available such relocation of services may be impractical and could still result in restricted working space available to the *Contractor*.

4.17.6. **Survey control and setting out of the works**

The *Contractor* participates in the mandatory Site visit to view the Site and associated constraints. The *Contractor* is to conduct a topographic survey and submit report in a DWG format. The *Employer* shall provide a minimum of two control points to the *Contractor* prior to commencement of *works*.

4.17.7. **Excavations and associated water control**

The *Contractor* shall bear the sole responsibility for the design, installation, and operation of any dewatering system at no additional cost to the *Employer*, to ensure that all open excavations are kept dry during the construction. Documentation relating to the design, installation, and operation of the dewatering system is to be reviewed and accepted by the *Employer*.

Adequate control shall be maintained to ensure that the stability of excavated and constructed slopes are not adversely affected by water, that erosion is controlled and that flooding of excavation or damage to any surrounding structures does not occur or delay construction.

4.17.8. **Underground services, other existing services, cable and pipe trenches and covers**

The *Contractor* shall investigate and detect underground services prior to any *works*, as part of the Prices.

The *Contractor* utilises detection equipment to establish and identify any underground services before any excavation or digging can take place on Site. If during the excavation or digging, the underground service gets damaged, the *Supervisor* shall be notified immediately to make a decision.

Any damages to the underground services shall be by the *Contractor* to acceptable standards unless the applied measures prove to be beyond his/her control.

4.17.9. Control of noise, dust, water and waste

- **Control of noise**

The *Contractor* must ensure that no excessive noise making machineries are used on Site. If such machinery is to be used, written approval must be obtained from the *Employer*. The *Contractor's* application to use machinery must be accompanied by a detailed plan indicating the safety plan and times interval for the usage of the machinery.

- **Dust**

The *Contractor* must properly control dust on Site by sprinkling dusty areas with water. Anyone within the construction area with such hazard must be supplied with dust marks.

- **Waste**

Chemical waste must only be disposed inside a marked waste skip or container on Site. No mixing of chemical waste on site will be allowed.

- **Hook ups to existing works**

Where hook-ups to existing *works* are required, the impact and effect of such hook-ups are detailed in the Installation Design and specific requirements identified in the Work Plan.

4.17.10. Sequences of construction or installation

Sequencing of construction activities are established as part of the Work Plan development and submitted with the Work Plan.

4.17.11. Giving notice of work to be covered up

The *Contractor* gives 24-hour notice, prior to work being covered up, of any inspections the *Supervisor* needs to perform on Site. Should the *Contractor* require inspections off Site, the *Contractor* allows for enough time to enable the *Supervisor* to make travel arrangements, following the *Contractor's* notification.

4.18. General Constraints

4.18.1. Laws and regulations to be complied with

The *Contractor*, at its own expense, complies with:

- Quantity Surveying Profession Act, 2000 (Act 49 of 2000);
- Engineering Profession Act, 2000 (Act No. 46 of 2000);
- Architectural Profession Act, 2000 (Act No. 44 of 2000);
- National Building Regulations SANS 10400;
- National Environmental Management Act (NEMA, No 107 of 1998); and
- Electricity Regulation Act 4 of 2006.
- the Nuclear Energy Act 92 of 1982,
- the National Key Points Act 102 of 1980,
- the Protection of Information Act 84 of 1982,
- the Occupational Health and Safety Act and Regulations (Act No. 85 of 1993) in particular R. 84 Occupational Health and Safety Act (85 of 1993): Construction Regulations, 2014;
- the Basic Conditions of Employment Act 75 of 1997. The *Contractor* indemnifies the *Employer* against any claims, proceedings, compensation and cost arising from the *Contractor's* transgression of the Act,
- the Labour Relations Act 66 of 1995,
- the Medicine and Related Substance Control Act 101 of 1965,

- the National Health Act 61 of 2003,
- the Compensation for Occupational Injuries and Diseases Act 130 of 1993, and
- all laws, regulations, bye-laws and requirements of local and other authorities which may be applicable to the *works* and as amended or replaced.

Where applicable, the *Contractor* complies with the *Employer's* Radiological Safety Regulations Programme, and in general, the whole framework of plant rules and regulations, which may be in force at the *Employer's* facilities from time to time.

While on the Site, the *Contractor* is at all times under the authority of the *Employer's* Power Station Manager for the purpose of giving effect to the provisions of the above. However, this does not in any way relieve the *Contractor* of his obligation to comply with the relevant legislation. Failure of the *Employer's* Power Station Manager to act in any specific manner does not make him or the *Employer* liable to the *Contractor* in any manner for any matter which may arise as a consequence of such failure to act.

4.18.2. Confidentiality and publicity

The exchange between the Parties or the disclosure to third parties of information is subject to the provisions of the Nuclear Energy Act 92 of 1982, the National Key Points Act 102 of 1980, and the Protection of Information Act 84 of 1982. The *Contractor* agrees that neither the *Contractor* nor its employees, agents or sub-*Contractors* make any public statements or release to any third party (including the Adjudicator) any information concerning the performance of any work without first obtaining the written approval of the *Employer*. Requests to release information are co-ordinated by the *Employer* through the designated *Employer's* Commercial Manager or the *Employer's* Power Station Manager. The *Contractor* ensures adherence of its employees, agents and sub-*Contractors* to this restriction.

4.18.3. Subcontracting

All sub-*Contractors* are contracted on a back-to-back basis under appropriate NEC conditions of contract and are subject to acceptance by the *Employer*. Where NEC conditions of contract are not utilised, the proposed conditions of contract are submitted to the *Employer* for acceptance.

In terms of the Construction Regulations, the *Contractor* only appoints a sub-*Contractor* when the *Contractor* is satisfied that such a sub-*Contractor* has the necessary competencies and resources to perform the work falling within the scope of the subcontract safely.

The *Contractor* is required to:

- Stop any sub-*Contractor* from executing construction work which is not in accordance with the *Contractor's* or sub-*Contractor's* health and safety plan for the Site or which poses a threat to the health and safety of persons;
- Ensure that every sub-*Contractor*:
 - is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing on the Site; and
 - have made provision for the cost of health and safety measures during the construction process.

4.18.4. Preferred sub-Contractors

Preference is given to South African companies as possible sub-*Contractors*. Where possible, local resources are utilised. A predetermined and mutually agreed value of this contract, at the Contract Date, is attributable to Eskom Holdings SOC Ltd classified Black Economic Enterprises (BEE) / Small Medium & Micro Enterprises (SMME) or Black Woman Owned (BWO) Enterprises. The value attributed to such enterprises is monitored by the *Contractor* and submitted to the *Employer* by means of a 3-monthly statement of expenditure.

4.18.5. Subcontract documentation, and assessment of subcontract tenders

The *Contractor* provides evidence of the selection process and criteria for each sub-*Contractor* appointed to assist the *Employer* in his contractual acceptance (Core Clause 21) of the sub-*Contractor*. The evidence includes skills assessment (including qualifications) for sub-*Contractor's*

staff. In the *Contractor's* submission to the *Employer* in terms of Core Clause 21, he also includes a "control and supervision of sub-*Contractor*" plan for acceptance, by the *Employer*.

4.18.6. Limitations on subcontracting

Sub-Contractors reporting relationships are such that quality outputs and independence is assured e.g., a radiography *sub-Contractor* cannot report to the welding *sub-Contractor*. These relationships are such that the *Contractor* has full control of all *sub-Contractor* outputs. *Sub-Contractors* contracting to *sub-Contractors* are to be avoided as far as possible. Exceptions are only allowed with the explicit acceptance of the *Employer*.

4.19. Design by the Contractor

4.19.1. Engineering and the Contractor's design

The *Contractor* complies with all the requirements specified in the *Works Information*.

For all designs required by the *works*, the *Contractor* complies with the *Employer's* procedure KAA 502 and ensures an ECSA registered Engineer approves all designs and design changes. The *Employer's* Engineers will review the design to ensure integration.

The *Contractor* also complies with the requirements of DSG 318-087.

The *Contractor's* designer shall be required to perform engineering services as per the responsibility matrix below:

	<i>Employer</i> design input	<i>Contractor</i> design
facility fire protection design. Including required safety signages for a facility.	X	X
Conduct a geotechnical investigation of the <i>site</i> (approximately 840m ²) and compiling of a technical report providing recommendation of required layerworks to achieve a minimum bearing capacity of		X

4.20. Fitness for duty management

The *Contractor* adheres to the *Employer's* procedure re. fitness for duty requirements for vendors and *Contractors* who are required to perform work inside the owner controlled areas of KNPS (335-68). This document is not applicable to visitors. Accesses for visitors are dealt with in KAA-777.

The objective of the *Employer's* FFD programme is to provide reasonable assurance that the *Contractor's* plant workers will perform their tasks in a reliable and trustworthy manner and are not under the influence of any substance or suffer from any health impairment which in any way adversely affects their ability to safely and competently perform their duties. The FFD programme also gives reasonable assurance that the workforce has been trained and their technical competence has been assessed.

The *Employer's* FFD process is designed to only allow the *Contractor's* employees to perform work if they:

- Have valid identification documents;
- Have been declared free of drugs and alcohol;
- Have been declared healthy, physically able and free of any medical condition that could impair their ability to perform the work they have been appointed for;
- Have valid work permits;
- Have completed the security background verification process;
- Have the qualifications required for the task;
- Have the minimum plant access training required to work on site;

- Have been declared competent and authorised to perform the work they have been appointed for;
- Have received specific training required for the work they will be required to perform; and
- Have signed a non-disclosure agreement to protect the *Employer's* information, they come in contact with.

4.20.1. FFD requirements before registration takes place

Information the *Contractor's* employee must supply:

- Identification document;
- Work permit (non-SA citizens);
- Qualifications;
- Curriculum Vitae (CV);
- Criminal record history; and
- Proof of residential address.

Forms that the *Contractor's* employee must sign:

- Pre-placement medical examination;
- Baseline questionnaire for audiometry;
- Medical declaration;
- Security permit application;
- Consent to disclose criminal information (if the *Employer* is performing the criminal check);
- SAPS enquiry; and
- Non-disclosure agreement (protection of information)

Activities to be performed before the *Contractor's* arrival at the Site:

Activity Description	Employer	Contractor	Requirements	Planning	Additional Notes
Recruitment & Selection		X		<i>Contractor's</i> own planning	
ID Document		X	Proof of identification is required before that the <i>Contractor's</i> employee is allowed to register on the FFD system.	<i>Contractor's</i> own planning	The following identification documents are the only documents that shall be accepted as proof of identification. <ul style="list-style-type: none"> • South African Identification Book issued by the Department of Home Affairs. (Green ID) or • Valid Official Passport or • Valid Temporary Identification Document issued by the Department of Home Affairs.
Proof of Residential Address		X	Proof of residential address is required before that the <i>Contractor's</i> employee is allowed to register on the FFD system.	<i>Contractor's</i> own planning	The proof may not be older than 3 months when the <i>Contractor's</i> employee is enrolled on the FFD system.
CV and Qualifications		X	Authenticated qualifications to be presented before registration takes place	<i>Contractor's</i> own planning	<ul style="list-style-type: none"> • CVs of <i>Contractor</i> employees are included in the documents where this is required by the procedure. • The <i>Contractor's</i> employees must be in possession of his/her CV when he/she arrives on site to start the FFD process. • The <i>Contractor</i> is required to verify the authenticity of the qualifications that is required for the work that is to be performed on Site. The <i>Employer</i> retains the right to verify any tertiary qualification that an applicant is required to have to work in a specific discipline. • The <i>Contractor</i> ensures that his employee has the original (or certified copy) of the qualifications

Activity Description	Employer	Contractor	Requirements	Planning	Additional Notes
					<p>when he/she is registered on the FFD system.</p> <ul style="list-style-type: none"> Persons not in possession of the qualifications required by the <i>Employer</i> are not considered for employment by the <i>Contractor</i> (in that particular discipline).
Criminal History		X	Assessment of criminal history	<i>Contractor's</i> own planning	<ul style="list-style-type: none"> Terminate Process Hold Point The criminal history of an applicant shall be assessed before access to the Site is considered. SA citizens obtain their criminal history reports from the South African Police (SAPS). The report may not be older than 3 months when the <i>Contractor's</i> employee is enrolled on the FFD system. This service is also available from the <i>Employer's</i> Security section. South African applicants are required to give their consent to the <i>Employer</i> to obtain the relevant information from the SAPS. Non South African citizens are required to provide proof of their criminal history. The criminal history report from their country's law enforcement agency or INPO (USA citizens only) is dated within three months of their required access date. Persons with a criminal background that is deemed to be a security risk to the Site are not to be considered for employment by the <i>Contractor</i>. The <i>Contractor's</i> employee will be in possession of the proof of criminal history when he/she arrives on site to start the FFD process.
Complete Man Job Spec Form	X	X	<i>Contractor</i> to complete with <i>Employer</i>	<i>Contractor's</i> own planning	<ul style="list-style-type: none"> The <i>Contractor</i> ensures that an occupational health services job specification form is completed, in conjunction with the <i>Employer</i>, for each of his employees and all signatures are obtained before the health assessment is arranged. These forms are obtainable from the <i>Employer</i> at Koeberg. The form identifies the work scope, the occupational hazards that the <i>Contractor's</i> employee will be exposed to and the physical attributes that are required for the execution of the tasks. The <i>Contractor's</i> employee will be in possession of the completed and signed occupational health services job specification form when he/she arrives on site to start the FFD process.
Drug Test		X	Negative drug test to be presented before registration takes place	<i>Contractor's</i> own planning	<ul style="list-style-type: none"> Terminate Process Hold Point <i>Contractor</i> ensures that their employees have been tested for drugs before they arrive on site to start the FFD process. Persons with a positive drug test result are not considered for employment by the <i>Contractor</i>. Persons with positive drug tests will not be allowed to register for the FFD process. The <i>Contractor's</i> employees must be in possession of the drug test results when he/she arrives on site to start the FFD process.
Health Assessment		X	Medical examination to be presented before registration takes place	<i>Contractor's</i> own planning	<ul style="list-style-type: none"> Terminate Process Hold Point The <i>Contractor</i> ensures that all his employees complete a health assessment before they arrive on site to start the FFD process. The occupational

Activity Description	Employer	Contractor	Requirements	Planning	Additional Notes
					<p>health services job specification form is required by the occupational health practitioner for the health assessment.</p> <ul style="list-style-type: none"> Applicants that are not declared fit to do the work specified in the occupational health services job specification form are not allowed to register on the FFD system. Health assessment are only performed by <i>Employer</i> registered Occupational Health Practitioners. The health assessment report is not older than 3 months when the <i>Contractor's</i> employee is enrolled on the FFD system. Persons that are not declared fit to perform the work specified in the occupational health services job specification form are not be considered for employment by the <i>Contractor</i>. The <i>Contractor's</i> employee must be in possession of the medical assessment results and other relevant documentation when he/she arrives on site to start the FFD process.
Work Permit		X	Work permits to be obtained before registration takes place	<i>Contractor's</i> own planning	<ul style="list-style-type: none"> Terminate Process Hold Point Non South African Citizens are required to be in possession of the relevant Work Permit as required by the Immigration Act before access is considered. Persons not in possession of a valid work permit is not be considered for employment by the <i>Contractor</i>. The <i>Contractor's</i> employee must be in possession of the original work permit when he/she arrives on site to start the FFD process.
Registration on FFD System	X	X		<i>Contractor's</i> own planning	<ul style="list-style-type: none"> <i>Contractor's</i> employees are registered on the <i>Employer's</i> FFD system by a person appointed by the <i>Employer</i>. This could be a <i>Contractor</i> employee, if appointed by the <i>Employer</i>. The <i>Employer</i> is responsible to arrange this activity. Registration is only performed if the <i>Contractor's</i> employee is in possession of all the documentation required for registration If the <i>Contractor's</i> employee is in possession of all the required documents, the individual will be registered and issued with a bar coded form.
Training Requirements Form	X	X	<i>Employer</i> and <i>Contractor</i> to supply	<i>Contractor's</i> own planning	<ul style="list-style-type: none"> The scope of each <i>Contractor</i> employee's work requirements are to be assessed to identify the training and/or technical assessments that are required before work may commence. All <i>Employer</i> training sessions includes an assessment at the end of each session. Persons that do not pass any training assessments and/or technical assessments as identified for the scope of work are not allowed to continue with the FFD process and shall be required to leave the Site. The <i>Employer</i> identifies any specific training needs of each individual or group of individuals (based on the planned work scope) and ensures compliance to the training requirements identified for the specific duties before access to Site is considered. The <i>Contractor's</i> employee must be in possession

Activity Description	Employer	Contractor	Requirements	Planning	Additional Notes
					of the training requirements form when he/she arrives on site to start the FFD process.
FFD Bookings	X	X		Contractor's own planning	<ul style="list-style-type: none"> Contractor's employees are booked on the Employer's FFD system by a person appointed by the Employer. This could be a Contractor employee, if appointed by the Employer.
Asbestos Training		X	Training that the Contractor's employee must complete (only if required)	Contractor's own planning	Only if required
Confined Space Training		X	Training that the Contractor's employee must complete (only if required)	Contractor's own planning	Only if required
Basic Rigging Training		X	Training that the Contractor's employee must complete (only if required)	Contractor's own planning	Only if required. The Contractor verifies the validity of prior learning
Non-Disclosure Agreement		X	All Contractor employees are required to sign a non-disclosure agreement	Contractor's own planning	<ul style="list-style-type: none"> The Contractor ensures that a non-disclosure agreement is signed form is signed by each employee before the person is registered to start the FFD process. These forms are obtainable from the Employer at Koeberg.
Security Permit Application	X	X	Employer and Contractor to supply	Contractor's own planning	<ul style="list-style-type: none"> The Contractor ensures that a security permit application form is completed for each employee, before the person is registered to start the FFD process. These forms are obtainable from the Employer at Koeberg. It is important that the form is completed by the Contractor in conjunction with the Employer. The form identifies the security areas that the Contractor's employee is required to enter for the execution of the tasks. The Contractor's employees must be in possession of the security permit application when he/she arrives on site to start the FFD process.

4.20.2. Fraudulent Documents

The Contractor's employees that have presented fraudulent documentation are permanently denied access to the Employer's Koeberg site.

4.20.3. False Declarations

The Contractor's employees that have made false declarations are permanently denied access to the Employer's Koeberg site.

4.20.4. FFD requirements after registration takes place

Activities to be performed after the Contractor's arrival at the Site:

Activity Description	Employer	Contractor	Requirements	Planning	Additional Notes
Enrolment on FFD System	X	X	<i>Contractor's</i> employees shall be enrolled on the <i>Employer's</i> FFD system by the Security Group when they arrive on site.	10 min	<ul style="list-style-type: none"> A <i>Contractor's</i> employee will not be allowed to attend any further FFD activities if he/she is not enrolled on the FFD system and issued with a bar coded form.
Drug Test	X	X	All the <i>Contractor's</i> employees are required to perform a drug test administered by the <i>Employer</i> . This test will be done notwithstanding the test done by the <i>Contractor</i> .	30 min	<ul style="list-style-type: none"> The <i>Contractor's</i> employees that fail the drug test are not allowed to continue further on the FFD process and will be required to leave the Site and will be denied access for at least 12 months.
Criminal History Verification	X	X	All <i>Contractor</i> employees that apply for a security permit to access the Site are required to give consent to the <i>Employer</i> to verify their criminal background. This activity is performed on site by the <i>Employer's</i> Security staff for South African citizens by the taking of a set of finger prints and forwarding same to the SAPS for verification.	30 min	<ul style="list-style-type: none"> South African citizens who have obtained their criminal records direct from the South African Police are only required to provide the <i>Employer's</i> Security staff with a set of fingerprints, for record purposes. <i>Contractor</i> employees with a criminal background that is deemed to be a security risk to Koeberg are denied access to the Site
Health Verification	X	X	<i>Contractor</i> employees are required to report to the <i>Employer's</i> Health Services section where the medical examination performed off-site will be verified to ensure that all requirements have been met.	30 min	The duration of this activity is approximately 30 minutes
Induction Training including: <ul style="list-style-type: none"> SAT PIT FME (Generic) Human Performance 	X	X	<ul style="list-style-type: none"> Site Access Training (SAT) <i>Contractor</i> employees that are required to work outside the protected area of KNPS are required to complete the SAT course before work may commence. Plant Induction Training (PIT) <i>Contractor</i> employees who are required to work inside the protected area of KNPS are required to complete the Plant Access Training (PAT) course before work may commence. Foreign Material Exclusion Training (FME) <i>Contractor</i> employees coming to site that require access to FME zones or will perform any hands-on work on the plant are required to complete this training. Human Performance Training (HPT) <i>Contractor</i> employees that are required to work inside the protected area of KNPS shall complete the Human 	8 hrs	<ul style="list-style-type: none"> Site Access Training (SAT) The SAT course is designed for persons working only in the OCA. Their security permits will not allow them access to the protected area of KNPS. <i>Contractor</i> employees that do not successfully complete the SAT course shall not be allowed access to the Site. Plant Induction Training (PIT) <i>Contractor</i> employees that do not successfully complete the PIT course are not allowed access to the Site. <i>Contractor</i> employees required to perform work in the intake basin are required to pass the PIT Foreign Material Exclusion Training (FME) <i>Contractor</i> employees that do not successfully complete the FME course are not allowed access to FME zones. Personnel required to perform hands-on work on the plant and for which FME was identified as part of the training requirements that do not complete the FME course successfully are not allowed access to the plant Human Performance Training (HPT) <i>Contractor</i> employees that do not successfully complete the HPT course are not allowed access to Site. <i>Contractor</i> employees required to perform work in the intake basin are required to pass the HPT

Activity Description	Employer	Contractor	Requirements	Planning	Additional Notes
			Performance Training (HPT) before work may commence.		course.
Induction to Working at Heights / Material Handling	X	X	<ul style="list-style-type: none"> Contractor employees are required to successfully complete the required Working at Heights/ Material Handling training before working at heights or handling material is considered. 	8 hrs	<ul style="list-style-type: none"> Only if required Failure to successfully complete the Working at Heights / Material Handling training will result in restriction to work at heights or handling material being prohibited
Radiation workers Training	X	X	<ul style="list-style-type: none"> Contractor employees are required to successfully complete the required radiation worker training before access to radiation zones is considered. 	3 days	<ul style="list-style-type: none"> Only if required Failure to successfully complete the radiation training shall result in access to radiation zones being restricted
Induction to Confined Space	X	X	<ul style="list-style-type: none"> Contractor employees are required to successfully complete the required confined space training before access to confined space is considered. 	2 hrs	<ul style="list-style-type: none"> Only if required Failure to successfully complete the confined space training will result in access to confined space being restricted
Induction to Asbestos Training	X	X	<ul style="list-style-type: none"> Contractor employees are required to successfully complete the required Asbestos training before access to Asbestos zones is considered. 	1 hr	<ul style="list-style-type: none"> Only if required Failure to successfully complete the Asbestos training will result in access to Asbestos zones being restricted
Induction to Basic Rigging	X	X	<ul style="list-style-type: none"> Contractor employees are required to successfully complete the required Rigging training before rigging work is considered. 	8 hrs	<ul style="list-style-type: none"> Only if required Failure to successfully complete the Rigging training will result in rigging work being prohibited
Supervisor Training	X	X	<ul style="list-style-type: none"> Contractor employees are required to work as Supervisors must successfully complete the required Supervisor training before work is considered. 	2.5 days	<ul style="list-style-type: none"> Only if required Failure to successfully complete the Supervisor training will result individual being prohibited to do supervision
Technical assessment <ul style="list-style-type: none"> Mechanical Machining MC&I Electrical Welding Pipe Fitting Civil TA 4 I&T MSS 	X	X	<ul style="list-style-type: none"> Contractor employees who are required to perform work of a technical nature inside the protected area of Koeberg are required to perform technical assessments and be authorised to perform the work that they have been assessed for. 	4hrs - 16p 12hrs - 3p 16hrs - 16p 8hrs - 4p 4hrs - 6p 6hrs - 4p 6hrs - 4p 8hrs - 4p	<ul style="list-style-type: none"> Only if required The Project Manager is responsible to indicate the work that the Contractor's employee will be performing on the Site. Contractor employees that do not successfully complete the technical assessment shall not be allowed to perform work on the Site. The duration of this activity depends on the type of work discipline and scope and is between 4 hours and two days.
Final acceptance and Issuing permit	X	X	<ul style="list-style-type: none"> All required FFD requirements are completed successfully before final acceptance is 	30min	

Activity Description	Employer	Contractor	Requirements	Planning	Additional Notes
			processed and a security permit is issued by the Security Group.		

4.20.5. Medical examinations

Medical examinations are done by *Employer* approved external medical practitioners. These are:

Occupational Health Practice	Contact Person	Telephone	e-mail address
Life Occupational Health	Magda van Zyl	0215917050	Magda.VanZyl@lifehealthcare.co.za
Incon	Benita Du Preez	021 975 2694 ext. 2001	benita@incon.co.za
OCSA	Sibusiso Ngubane	0219810141	sibusison@ocsa.co.za
EOH	Pam Kinnock	0212527750	Pam.Pinnock@eoh.co.za
Fair Care Health	Colleen Paul	021 552 1377 I	hmalaka@msn.com

The *Contractor* is responsible for the cost and completion of the medical examination by his personnel prior to them coming to Site.

The *Contractor* is liable for payment of medical examinations and COVID -19 screening of staff.

4.20.6. Criminal record check verification service provider:

For all background screenings and qualification verifications.

4 Denne Ave, Panorama, Cape Town, 7506
Office Number 021 911 5011 / 021 911 5338
Fax: 086 750 2734
Cell: 084 8500 432, e-mail: call@nevetec.co.za
www.nevetec.co.za

4.20.7. COVID-19 controls that must be followed:

- Mask shall be provided by the *Contractor* and employees will wear it at all times while at the Site
- Temperature screening must be done outside of FFD centre in the allocated location, before proceeding to the Medical Centre reception desk.
- Hand sanitizers are in place and the practicing of social distancing will be strictly adhered to.

4.20.8. Exit procedure

The *Contractor* and the *Employer* ensure that permit holders that no longer require access to the Site follow the FFD exit procedure. Failure to do so may result in the *Contractor's* employee being denied access in future.

The duration of the exit activity is approximately 90 minutes and includes an exit medical examination.

4.20.9. Security check points

Prior to access to Site, the *Contractor* passes through various security check points, via entrance at the R27 access gate, entrance at the Duynefontein entrance and at Bulk Stores.

4.20.10. Access to Radiological Areas “Controlled Zones” and Reactor Building (where applicable)

Where work is to be performed in a radiological area (Controlled Zone), the *Contractor* needs to pass through a dosimetry-issue check point.

General access for inspections and measurements in the reactor buildings are not allowed during the operation of the plant and are limited during the refuelling outages with access limitations in accordance with KSA-062.

Access to radiological areas is subject to all training and verifications being completed as stated in this *Works Information*.

4.20.11. Prohibited/unauthorised items on site

In terms of the National Key Point Act 102 of 1980, Koeberg Operating Unit is a declared National Key Point (NKP). The National Key Point Act requires and empowers the owner of the National Key Point (Power Station Manager), to implement measures that will ensure the security of the National Key Point. The National Key Point area at the power station is the area within the protected area barrier (ACP 2 inwards).

One such security measure is procedure KAA-777 Revision 4 (Process for access to Koeberg Nuclear Power Station). The procedure stipulates that the following items are prohibited from being brought onto site, unless specifically authorised:

- explosives or components thereof,
- habit forming drugs,
- alcohol,
- mercury,
- acids,
- cellular phones,
- firearms, ammunition or any part thereof, and
- cameras

Contractor personnel violating the procedure will be investigated and may result in action being instituted against such individuals and possible removal from site.

To keep the *Contractor* informed, pictograms of the items are placed at all ACP 2 access points and it is also addressed in the Plant Induction Training (PIT). It is the responsibility of each of the *Contractor's* employees to ensure compliance and to refrain from bringing prohibited/unauthorized items onto the site.

4.20.12. Vehicles and tools/equipment

All equipment and tools are subject to a security screening before they are allowed on the Site. All equipment and tools must be listed and specified before they are brought on Site. This list will serve as evidence for removal permits upon Completion of the *works*. Vehicles are only allowed on Site if justification is provided to the *Employer* that such a vehicle is essential to Provide the *Works*.

5. Requirements for the programme

The *Contractor* will be required to submit a programme 2 (two) weeks after signing this contract. The programme should be submitted on Microsoft Project. The programme shall indicate the following:

- Name of the activity;
- Start date and end date;
- Duration;
- Predecessors; and
- Allocated resources

The programme must be revised immediately when any changes occurs and be submitted to the *Employer*. If the *Contractor* has to allow for extended working hours including working during weekends to meet the project end date these hours will not be considered as Compensation Events.

6. Services and other things provided by the *Employer*

6.1. Electric power supplies

Electric power for construction is supplied free of charge, but connection fees are for the *Contractor's* account. All installations comply with the details set out under Construction Power Supplies, OH&SA (Act 85 of 1993).

Activity description	<i>Employer</i>	<i>Contractor</i>	Requirements	Planning	Additional notes
Electrical supply point	X		<ul style="list-style-type: none"> Power supply points will be made available to which the <i>Contractor</i> interfaces for his power requirements. Three levels of power supplies are available: <ul style="list-style-type: none"> 220V AC rated at 15 A at various positions on Site, 380V AC three phase rated at 32 A without neutral at various positions on the Site, 6.6 KV AC three phase at various positions on the Site. 	As required	The <i>Employer</i> does not guarantee continuity of supply and no compensation events for standing time as a result of power failures will be considered.
Electrical leads and adapters / connectors and (where required) distribution system.		X	<ul style="list-style-type: none"> All leads, plugs, connections and adapters shall be in good working order and comply with the requirements of the OH&S Act. All portable electrical equipment used by the <i>Contractor</i> is clearly marked; regularly inspected for safety and a register kept of these inspections as required by the OH&S Act. Defective Equipment is removed from Site until restored to a good working order by the <i>Contractor</i>. The <i>Contractor</i> provides and maintains an electrical distribution system (including temporary wiring, cabling, distribution boards, protection, metering etc.) to lead power from the <i>Employer's</i> supply point, to where it is required. On Completion the <i>Contractor</i> removes all such temporary distribution systems (included as part of the Work Plan). 	As required	The <i>Employer</i> reserves the right to stop the <i>Contractor's</i> use of any electrical equipment or appliance that in the <i>Employer's</i> opinion does not conform to the foregoing.

6.2. Lighting

Activity description	<i>Employer</i>	<i>Contractor</i>	Requirements	Planning	Additional notes
Temporary local lighting		X	<ul style="list-style-type: none"> Where applicable, the <i>Contractor</i> provides temporary local lighting in accordance with the safety requirements of the Occupational Health and Safety Act. 	As required	The <i>Employer</i> provides no additional lighting other than the local lighting installed and does not guarantee the serviceability or the availability of these installations.

6.3. Water

Activity description	Employer	Contractor	Requirements	Planning	Additional notes
Water supply		X	<ul style="list-style-type: none"> Potable water is to be supplied 	As required	The <i>Employer</i> takes no responsibility for disruptions in the supply of water.
Water supply hoses, connectors, piping and temporary plumbing and pumps.		X	<ul style="list-style-type: none"> All devices shall be in good working order and comply with the requirements of the OH&S Act. The <i>Contractor</i> provides and maintains all pipework and temporary plumbing and pumps necessary to lead the water from the <i>Employer's</i> points of supply to the various points where it is required. On Completion the <i>Contractor</i> removes such pipework, temporary plumbing and pumps (included in the Work Plan). 	As required	

6.4. Sanitary facilities

Activity description	Employer	Contractor	Requirements	Planning	Additional notes
Sanitary facilities	X	X	<ul style="list-style-type: none"> The <i>Contractor</i> is allowed access to and use of the <i>Employer's</i> existing sanitary facilities during normal working hours. The <i>Contractor's</i> personnel maintain a clean condition of these facilities. Should temporary sanitary facilities be required, the <i>Contractor</i> provides these. 	Not applicable	

6.5. Office accommodation and/or yard

The *Contractor* is to provide for temporary offices, dining facilities and storage for the duration of the project. The *Contractor* provides all remaining facilities to Provide the *Works*. Facilities provided by the *Contractor* are to be removed prior to Completion.

Activity description	Employer	Contractor	Requirements	Planning	Additional notes
Indication of site office requirements for various stages of the project including the office services required.		X	<ul style="list-style-type: none"> Request to be for services in accordance with the requirements of this contract. 	12 weeks notice	
Review of request and indication of offices available and container lay-down areas available.	X			2 weeks duration	The <i>Contractor</i> will be allocated within the security area for establishment of his site office facility.

Activity description	Employer	Contractor	Requirements	Planning	Additional notes
Supply of connection points for phone, fax, network.	X		<ul style="list-style-type: none"> Co-ordination and scheduling by <i>Contractor</i>. 	As required	The Supply of these connection might be delayed and the <i>Contractor</i> is expected to make alternative arrangement while waiting for the <i>Employer</i> to provide the connection points. The <i>Employer</i> does not guarantee continuity of supply and no compensation events for standing time as a result of failures to provide will be these services will be considered.
Supply of containers / Office space		X	<ul style="list-style-type: none"> <i>Contractor</i> to co-ordinate. 	2 months' notice	This is for temporary container laydown area which the <i>Employer</i> will designate. The <i>Contractor</i> to furnish his specifications.

6.6. Garbage collection

Activity description	Employer	Contractor	Requirements	Planning	Additional notes
Garbage collection	X		<ul style="list-style-type: none"> A central garbage collection point is provided on the Site and is pointed out by the <i>Employer</i> on request from the <i>Contractor</i>. No facilities are provided for the removal of construction debris. The <i>Contractor</i> is responsible for the removal of all construction debris/scrap from Site to the central garbage collection point. 	Not applicable	The collection of garbage does not include the removal of construction debris/scrap

6.7. House keeping

The *Contractor* is responsible for any damage to buildings, floors and plant incurred during the Provision of the *Works*. The work-sites are to be kept clean, neat and free of waste at all times. The working areas and material storage areas are barricaded off and sign-posted to prevent access to anyone not involved with the job. The plant is left in the same or better condition, after Completion, than it was found.

6.8. Personal computers

Activity description	Employer	Contractor	Requirements	Planning	Additional notes
Supply of phones, faxes and computers including the microwave or radio link for connection to the external internet networks.		X	N/A	In accordance with Accepted Programme	No cellular or mobile phones are allowed on Site.

6.9. Canteen and snack bar

Activity description	Employer	Contractor	Requirements	Planning	Additional notes
Canteen, snack bar and vending supplies	X		<ul style="list-style-type: none"> The <i>Employer's</i> canteen and snack bar may only be used on a cash basis. The <i>Contractor</i> supplies vending machines if required. 	Not applicable	

6.10. Telephones

Activity description	Employer	Contractor	Requirements	Planning	Additional notes
Telephone and Fax account payments and LAN account payments		X	<ul style="list-style-type: none"> <i>Contractor</i> to provide his own communication tools and equipment 	As required	

C4: Site Information

1 Location of the Site

The Site is located within ACP2 at Koeberg Operating Unit (KOEBERG) north of Melkbosstrand in the South Western Cape and is reached via the main road from Cape Town to Saldanha (R27). The turn-off to KOEBERG is indicated on the R27. KOEBERG is approximately 30 km north of Cape Town and the approximate co-ordinates are 33°40.7'S and 18° 26.1'E.

After the turn off, the access route follows the main road to KOEBERG.

2 Security check points

Prior to access to Site, there are two PEB security check points, viz, at the entrance from the R27 and at the entrance from Duynefontein. Security access is through Access Control Points (ACP) 1 and 2.

Personnel entering the Site are to be in possession of their Identity Document (ID) for verification. New personnel are to report to the ACP1 Office for administration and record update.

No cameras, fire arm, cell phone and sharp objects shall be allowed to enter Site

3 Ground conditions in areas affected by work in this contract

The *Contractor* is to conduct a geotechnical investigation of the site (approximately 840m²) and compile a technical report.

4 Hidden and other services within the site

The *Contractor* is to conduct an underground services scan to determine existing services located within the *site* footprint. The *Contractor* is to develop a drawing indicating all located services and submit the file to the *Employer* in DWG/DXF/DGN format.