



NEC3 Term Service Contract (TSC3)


Between **ESKOM HOLDINGS SOC LIMITED**
(Reg No. 2002/015527/06)


and [Insert at award stage]
(Reg No. _____)

for **The disposal of old Unit 1 Reactor Pressure Vessel Closure Head (RPVCH) and Unit 2 RPVCH with Control Rod Drive Mechanisms (CRDMs)**

Contents:		No of pages
Part C1	Agreements & Contract Data	23
Part C2	Pricing Data	5
Part C3	Scope of Work	72

CONTRACT No. [Insert at award stage]

 Eskom Q1/L2
PS Xotyeni
238-102 Rev 2
DSG-310-365
Procurement Quality Engineering


2023-02-07

PART C1: AGREEMENTS & CONTRACT DATA

Contents:		No of pages
C1.1	Form of Offer and Acceptance [to be inserted from Returnable Documents at award stage]	3
C1.2a	Contract Data provided by the <i>Employer</i>	15
C1.2b	Contract Data provided by the <i>Contractor</i> [to be inserted from Returnable Documents at award stage]	2
C1.3	Proforma Guarantees	3

C1.1 Form of Offer & Acceptance

Offer

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

The disposal of old Unit 1 Reactor Pressure Vessel Closure Head (RPVCH) and Unit 2 RPVCH with Control Rod Drive Mechanisms (CRDMs)

The tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto 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.

Options A	The offered total of the Prices exclusive of VAT is	As per Task Order
	Sub total	As per Task Order
	Value Added Tax @ 15% is	As per Task Order
	The offered total of the amount due inclusive of VAT is ¹	As per Task Order

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance 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
Name & organisation)

signature of
witness

Date

Tenderer's CIDB registration number:

¹ This total is required by the *Employer* for budgeting purposes only. Actual amounts due will be assessed in terms of the *conditions of contract*.

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 C1 Acceptance)	Agreements and Contract Data, (which includes this Form of Offer and
Part C2	Pricing Data
Part C3	Scope of Work: Service 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 Returnable 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.

The tenderer shall within two weeks 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 original copy of this document, including the Schedule of Deviations (if any).

Signature(s)

Name(s)

Capacity

**for the
Employer**

Eskom Holdings SOC Limited
KNPS
R27 off West Coast Road
Melkbosstrand
Republic of South Africa
7441

Name &
signature of
witness

Date

Schedule of Deviations to be completed by the *Employer* prior to contract award

Note:

1. 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.

<p style="text-align: center;">For the tenderer:</p> <p>Signature _____</p> <p>Name _____</p> <p>Capacity _____</p> <p>On behalf of <i>(Insert name and address of organisation)</i> _____</p>	<p style="text-align: center;">For the Employer</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Eskom Holdings SOC Limited KNPS R27 off West Coast Road Melkbosstrand Republic of South Africa 7441</p>
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Name &
signature
of witness _____

Date _____

C1.2 TSC3 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
		A: Priced contract with price list
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X1: Price adjustment for inflation
		X2: Changes in the law
		X3: Multiple currencies
		X13: Performance Bond
		X18: Limitation of liability
		X19: Task Order
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Term Service Contract (June 2005) ²	
10.1	The <i>Employer</i> is (name):	Eskom Holdings SOC Limited (Reg No: 2002/015527/06), a juristic person incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
	Represented by	Mr. Pieter Le Roux
	Tel No.	+2711 8002728
	e-mail	LeRouxPG@eskom.co.za
10.1	The <i>Service Manager</i> is (name):	Ms. Xoliswa Motlhale
	Address	Koeberg Nuclear Power Station (KNPS), R27 Off West Coast Road, Melkbosstrand
	Tel	+27 21 550 5426

² Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009

	Fax	+27 21 550 5101
	e-mail	MotlhaXM@Eskom.co.za
11.2(2)	The Affected Property is	KNPS within the boundaries of Access Control Point 2 (ACP2) and areas specifically affected by the goods and service.
11.2(13)	The <i>service</i> is	The disposal of old Unit 1 Reactor Pressure Vessel Closure Head (RPVCH) and Unit 2 RPVCH with Control Rod Drive Mechanisms (CRDMs)
11.2(14)	The following matters will be included in the Risk Register	<ul style="list-style-type: none"> • Matters notified as early warnings. • Decisions resulting from risk reduction meetings.
11.2(15)	The Service Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	<ul style="list-style-type: none"> • 1 (one) week during non-outage periods for general correspondence. • 24 (twenty-four) hours during outage periods; and • Period for review and approval of documentation as stated in Service Information.
2	The Contractor's main responsibilities	
21.1	The <i>Contractor</i> submits a first plan (TSC Clause 3) for acceptance within	4 (four) weeks of the Task Order Date
3	Time	
30.1	The <i>starting date</i> is.	TBA
30.1	The <i>service period</i> is	36 months
4	Testing and defects	No data is required for this section of the conditions of contract.
5	Payment	
50.1	The <i>assessment interval</i> is	between the 24th and 25th day of each successive month.
51.1	The <i>currency of this contract</i> is the	South African Rand

51.2	The period within which payments are made is 4 (four) weeks.							
51.4	The <i>interest rate</i> is	<p>(i) zero percent above the publicly quoted prime rate of interest (calculated on a 365-day year) charged by 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 Rands and</p> <p>(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption “Money Rates” in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such <i>service</i> as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted <i>mutatis mutandis</i> every 6 months thereafter (and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.</p>						
52.	The expenses stated for Compensation Events, by the Employer are	<table><tr><th>Item</th><th>Amount</th></tr><tr><td>Accommodation</td><td>Domestic hotel accommodation may not exceed one thousand four hundred rand (R1 400), inclusive of VAT, per night per person (including dinner, breakfast and parking).</td></tr><tr><td>Flights</td><td>Local flights –travel on economy class International flights – travel on economy class. No business or first class travel is allowed At cost</td></tr></table>	Item	Amount	Accommodation	Domestic hotel accommodation may not exceed one thousand four hundred rand (R1 400), inclusive of VAT, per night per person (including dinner, breakfast and parking).	Flights	Local flights –travel on economy class International flights – travel on economy class. No business or first class travel is allowed At cost
Item	Amount							
Accommodation	Domestic hotel accommodation may not exceed one thousand four hundred rand (R1 400), inclusive of VAT, per night per person (including dinner, breakfast and parking).							
Flights	Local flights –travel on economy class International flights – travel on economy class. No business or first class travel is allowed At cost							

Car Hire		Group B or an equivalent class. Group B vehicles contain the following specifications: <ul style="list-style-type: none"> • 5 Doors, manual • Air conditioning • Radio / CD • Power steering • Airbags, central locking • ABS
Airport parking charges, toll fees and taxis		at cost
The above is in terms of:		<ul style="list-style-type: none"> • Government Gazette No.37042 dated 15 November 2013, • Treasury Regulations (published under Government Notice R225 of 15 March 2005, as amended) • Eskom's Directive for the Implementation of the National Treasury Cost Containment Instruction and Government Gazette (Ref: 240-78635659).
6	Compensation events	
	These are additional compensation events:	None
7	Use of Equipment Plant and Materials	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
8	Risks and insurance	
80.1	These are additional Employer's risks	None
9	Termination	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
10	Data for main Option clause	
A	Priced contract with price list	

20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the <i>service</i> at intervals no longer than	4 (four) weeks, before the <i>assessment date</i>.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is (Name)	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 <i>Adjudicator nominating body</i>.
W1.2(3)	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.
W1.4(2)	The <i>tribunal</i> is:	arbitration
W1.4(5)	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	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.
	- if the Parties cannot agree a choice or	
	- if the arbitration procedure does not state who selects an arbitrator, is	
12	Data for secondary Option clauses	
X1	Price adjustment for inflation	
X1.1	The <i>base date</i> for indices is	February 2023

	The proportions used to calculate the Price Adjustment Factor are:	proportion	linked to index for	Index prepared by
		0.25	People	“Consumer Price Index and percentage change according to area” for the Witwatersrand as published in the Statistical News Release, P0141 Table 7.1 of Statistics South Africa
		0.12	Equipment	“Producer Price Index for selected materials” for construction machinery (excluding trucks) as published in the Statistical News Release P0142.1, Table 12 of Statistics South Africa
		0.45	Plant and materials	“Producer Price Index for materials used in certain industries” for Building and Construction: Building industries as published in the Statistical News Release P0142.1, Table 11 of Statistics South Africa
		0.03	Fuel (Diesel)	“Producer Price Index for selected materials” for diesel at wholesale level: Witwatersrand as published in the Statistical News Release P0142.1, Table 12 of Statistics South Africa

		0.15	non-adjustable	
		1.00		The Price Adjustment Factor is not applied to the special materials identified by the <i>Contractor</i> in Part 2 of the Contract Data which are increased or decreased by the net amount of any documented variation incurred after the base date on the basis set out in such data.
X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data		
X3	Multiple currencies			
X3.1	The <i>Employer</i> will pay for these items or activities in the currencies stated	Items & activities	Other currency	Maximum payment in other currency
		[•]		
		[•]		
		[•]		
		[•]		
X3.1	The <i>exchange rates</i> are those published in	[•] on [•] (date)		
		<p>The items & activities will be paid in the other currency</p> <ul style="list-style-type: none"> - to a foreign Bank account nominated by the <i>Contractor</i> - to a valid SARB approved CFC account in South Africa - in accordance with an alternative payment method agreed with the <i>Employer</i> before the Contract Date. <p>(Select one of the three methods as agreed with the successful tenderer prior to contract award and delete the others and this note)</p>		
		The direct cost of modification of forward cover due to a change in the following is paid by the Party causing the change:		

		<ul style="list-style-type: none"> the date of payment. the date of invoicing; and the currency to be paid.
X13	Performance bond	
X13.1	The amount of the performance bond is	R 25 million
X18	Limitation of liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	R0.0 (zero Rand)
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	the amount of the deductibles relevant to the event
X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	The greater of <ul style="list-style-type: none"> the total of the Prices at the Contract Date and the amounts excluded and unrecoverable from the <i>Employer's</i> insurance (other than the resulting physical damage to the <i>Employer's</i> property which is not excluded) plus the applicable deductibles
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	the total of the Prices other than for the additional excluded matters. The <i>Contractor's</i> total liability for the additional excluded matters is not limited. The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for <ul style="list-style-type: none"> Defects due to his design, plan and specification, Defects due to manufacture and fabrication outside the Affected Property, loss of or damage to property (other than the <i>Employer's</i> property, Plant and Materials), death of or injury to a person and infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	18 months after the end of the <i>service period</i>.
X19	Task Order	

X19.2	The amount of delay damages for the late completion of the Task is	The percentage of delay damages per Task Order	Task Order	Phases	Completion Date for each Task Order
	R32750 per day	Capped at 5% of Task Order 1	1	<p>Phase 1a: Development of waste management optioneering studies for the removal of radioactive waste from the Affected Property, considering the following scenarios: -</p> <ul style="list-style-type: none"> a) on-site storage. b) disposal at an authorised facility; and c) reprocessing within international norms and best practices. <p>For the acceptance by the <i>Service Manager</i>.</p> <p>Note: A road transport route study to an authorised facility, (namely Vaalputs), was performed under the Steam Generator Replacement Project – see URS informative reference “1407CPT-0882: Transportation Study for the Delivery of the RSGs and the Delivery of the OSGs for KNPS”.</p> <p>Further, if the accepted option outcome is not scenario b) then apply applicable “Z” clause ## under Part D: Commercial Execution Strategy.</p>	As per first Accepted Programme
	R32750 per day	Capped at 5% of Task Order 2	2	<p>Phase 1b: Development of a Solid Radioactive Waste Disposal Plan (SRWDP) and supporting documentation in accordance with the Radioactive Waste Management Policy and Strategy for the Republic of South Africa 2005 {based on scenario b)} for submission for review, acceptance and authorisation, as applicable, namely the <i>Service Manager</i>, National Nuclear Regulator (NNR), National Committee on Radioactive Waste Management (NCRWM) and the Minister of the Department of Mineral Resources and Energy (DMRE). National Radioactive Waste Disposal Institute (NRWDI)</p>	

	R32750 per day	Capped at 5% of Task Order 2	3	Phase 2: Development of a licensing framework, and safety cases with supporting documents to obtain permission inter alia, for the removal, transportation, security and disposal of the radioactive waste	As per first Accepted Programme
	R49125 per day	Capped at 5% of Task Order 3	4	Phase 3: Implementation of the approved SRWDP , based on scenario b) of the optioneering study, including the transport from the Affected Property to an authorised facility with appropriate security measures. Transportation Packaging Design and Manufacturing Transportation and Off-Loading Obtain all acceptances for the waste disposal delivery to the authorised facility;	As per first Accepted Programme

X19.5 The *Contractor* submits a Task Order programme (Option Clause X19.5) to the *Service Manager* within **15 days of receiving the Task Order**

Z **The additional conditions of contract are** **Z1 to Z14 always apply.**

Z1 Cession delegation and assignment

- Z1.1** The *Contractor* does not cede, delegate, or assign any of its rights or obligations to any person without the written consent of the *Employer*.
- Z1.2** Notwithstanding the above, the *Employer* may on written notice to the *Contractor* 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 Joint ventures

- Z2.1** If the *Contractor* constitutes a joint venture, consortium, or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.
- Z2.2** Unless already notified to the *Employer*, the persons or organisations notify the *Service Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.
- Z2.3** The *Contractor* does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

Z3 Change of Broad Based Black Economic Empowerment (B-BBEE) status

- Z3.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor's* B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
- Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Service Manager* within thirty days of the notification or as otherwise instructed by the *Service Manager*.
- Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Service.
- Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P4 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

- Z4.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Service Manager*.
- Z4.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* 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 *Contractor* 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.
- Z4.4 The taking of images (whether photographs, video footage or otherwise) of the Affected Property or any portion thereof, in the course of Providing the Service and after the end of the *service period*, requires the prior written consent of the *Service Manager*. All rights in and to all such images vests exclusively in the *Employer*.
- Z4.5 The *Contractor* ensures that all his SubContractors abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

- Z5.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the *Service Manager* or the Adjudicator 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.

Z6 Health, safety, and the environment: Add to core clause 27.4

- Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *service*. Without limitation the *Contractor*:
- accepts that the *Employer* may appoint him as the "Principal Contractor" (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 Affected Property.
 - 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 the *service*; and
 - undertakes, in and about the execution of the *service*, 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 *Contractor's* direction and control, likewise observe and comply with the foregoing.
- Z6.2 The *Contractor*, in and about the execution of the *service*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his SubContractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

Z7 Provision of a Tax Invoice and interest. Add to core clause 51

- Z7.1 Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Service Information, showing the amount due for payment equal to that stated in the payment certificate.
- Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* 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 *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer's* VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

- Z8.1 Delete the last paragraph of core clause 61.3 and replace with:

If the *Contractor* does not notify a compensation event within eight weeks of becoming aware of the event, he is not entitled to a change in the Prices.

Z8.2 Add to core clause 62.3, "The *Service Manager's* reply which is an acceptance of a quotation for a compensation event may require the due authority of the *Employer*."

Z8.3 Add to core clause 62.5, "The *Service Manager* notifies the *Contractor* if the *Employer's* authority is required and includes in his notification any extension to the period within which he is required to reply to the *Contractor's* quotation.

Z9 *Employer's limitation of liability*

Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)

Z9.2 The *Contractor's* entitlement under the indemnity in 82.1 is provided for in 60.1(12) and the *Employer's* liability under the indemnity is limited to compensation as provided for in core clause 63 and X19.11 if Option X19 Task Order applies to this contract.

Z10 *Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":*

Z10.1 or had a business rescue order granted against it.

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 SubContractors or SubContractor's 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 SubContractors or the SubContractor's 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 *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* 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 *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.

Z11.3 If the *Employer* terminates the *Contractor's* 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 *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

Z _12.1 Replace core clause 83 with the following:

Insurance cover 83

83.1 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.

Z __12.2 Replace core clause 86 with the following

Insurance by the Employer 86

86.1 The *Employer* provides the insurances stated in the Insurance Table B

INSURANCE TABLE B

Insurance against or name of policy	Minimum amount of cover or minimum limit of indemnity
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document

Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	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 47 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 47 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 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, normalized to the baseline of a 4-hour continuous period, also applicable to short term exposures, i.e., 10-minute TWA.

- Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* 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.
- Z14.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are affected by an independent, competent, and certified occupational hygiene inspection body, i.e., a SANAS accredited, and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* 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.
- Z14.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z14.4 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.
- Z14.5 The *Contractor's* 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.
- Z14.6 The *Contractor* 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.

- Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos *Contractor*, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

Notes to a tendering contractor:

1. Please read both the both the NEC3 Term Service Contract (June 2005) and the relevant parts of its Guidance Notes (TSC3-GN)³ in order to understand the implications of this Data which the tenderer is required to complete.
2. The number of the clause which requires the data is shown in the left-hand column for each statement however other clauses may also use the same data
3. Where a form field like this [] appears, data is required to be inserted relevant to the option selected. Click on the form field **once** and type in the data. Otherwise, complete by hand and in ink.

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is Note: <i>direct fee percentage</i> is applied to the Defined Cost of other work The <i>subcontracted fee percentage</i> is Note: <i>subcontracted fee percentage</i> is applied to the Defined Cost of subcontracted work	% %
11.2(14)	The following matters will be included in the Risk Register Note: The listing of risks on the Risk Register does not have the effect of fixing either of the parties with any particular risk.	
11.2(15)	The Service Information for the <i>Contractor's</i> plan is in:	
21.1	The plan identified in the Contract Data is contained in:	
24.1	The key persons are: 1 Name: Job:	

³ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009

Responsibilities:

Qualifications:

Experience:

2 Name:

Job

Responsibilities:

Qualifications:

Experience:

CV's (and further key person's data
including CVs) are in _____.

A	Priced contract with price list
11.2(12)	<p>The price list is in Annexure 1</p> <p>Note: The price list is used for payment purposes Please insert a reference to the list of activities prepared by the Tenderer which he expects to carry out in Providing the Services indicating a lump sum for each activity which requires such.</p>
11.2(19)	The tendered total of the Prices is R

C1.3 Proforma Guarantees

Pro forma for Bonds & Guarantees

For use with the NEC3 Term Service Contract (June 2005)

The *conditions of contract* stated in the Contract Data Part 1 include the following Secondary Options:

Option X13: Performance Bond

Each of these secondary Options requires a bond or guarantee "in the form set out in the Service Information". Pro forma documents for these bonds and guarantees are provided here for convenience but are to be treated as part of the Service Information.

The organisation providing the bond / guarantee does so by copying the pro forma document onto his letterhead without any change to the text or format and completing the required details. The completed document is then given to the *Employer* within the time stated in the contract.

Pro forma Performance Bond – Demand Guarantee (for use with Option X13)

(to be reproduced exactly as shown below on the letterhead of the Bank providing the Guarantee)

Eskom Holdings SOC Limited
Megawatt Park
Maxwell Drive
Sandton
Johannesburg

Reference No.

[●] *[Drafting Note:
Bank reference
number to be
inserted]*

Date:

Dear Sirs

Performance **Bond – Demand Guarantee:** *[Drafting Note: Name of Contractor to be inserted]*

Project [] Contract Reference: *[Drafting Note: Contractor contract reference number to be inserted]*

1. In this Guarantee the following words and expressions shall have the following meanings: -
 - 1.1 “Bank” - means [●], [●] Branch, (Registration No. [●]); *[Drafting Note: Name of Bank to be inserted]*
 - 1.2 “Bank’s Address” - means [●]; *[Drafting Note: Bank’s physical address to be inserted]*
 - 1.3 “Contract” – means the written agreement relating to the Services, entered into between Eskom and the *Contractor*, on or about the [●] day of [●] 200[●] (Contract Reference No. [.] as amended, varied, restated, novated or substituted from time to time; *[Drafting Note: Signature Date and Contract reference number to be inserted]*
 - 1.4 “*Contractor*” – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. *[Drafting Note: Name and details of Contractor to be inserted]*
 - 1.5 “Eskom” - means Eskom Holdings SOC Limited, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/06].
 - 1.6 “Expiry Date” - means the earlier of
 - the date that the Bank receives a notice from Eskom stating that all amounts due from the *Contractor* as certified in terms of the contract have been received by Eskom and that the *Contractor* has fulfilled all his obligations under the Contract, or
 - the date that the Bank issues a replacement Bond for such lesser or higher amount as may be required by Eskom
 - 1.7 “Guaranteed Sum” - means the sum of R [●] ([●] Rand);
 - 1.8 “Services” - means [insert as applicable.].
2. At the instance of the *Contractor*, we the undersigned _____ and _____, in our respective capacities as _____ and _____ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of Eskom, as security for the proper performance by the *Contractor* of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to Eskom, on written demand from Eskom received prior to the Expiry Date, any sum or sums not exceeding in

total the Guaranteed Sum.

3. A demand for payment under this guarantee shall be made in writing at the Bank's address and shall:
 - 3.1 be signed on behalf of Eskom by a director of Eskom.
 - 3.2 state the amount claimed ("the Demand Amount").
 - 3.3 state that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.
4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as principal and not as surety and the Bank's obligation/s to make payment:
 - 4.1 is and shall be absolute provided demand is made in terms of this bond in all circumstances; and
 - 4.2 is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.
5. The Bank's obligations in terms of this Guarantee:
 - 5.1 shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and
 - 5.2 shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed, by the fact that a dispute may exist between Eskom and the *Contractor*.
6. Eskom shall be entitled to arrange its affairs with the *Contractor* in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the *Contractor* or any variation under or to the Contract.
7. Should Eskom cede its rights against the *Contractor* to a third party where such cession is permitted under the Contract, then Eskom shall be entitled to cede to such third party the rights of Eskom under this Guarantee on written notification to the Bank of such cession.
8. This Guarantee:
 - 8.1 shall expire on the Expiry Date until which time it is irrevocable.
 - 8.2 is, save as provided for in 7 above, personal to Eskom and is neither negotiable nor transferable.
 - 8.3 shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof.
 - 8.4 shall be regarded as a liquid document for the purpose of obtaining a court order; and
 - 8.5 shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the Courts of the Republic of South Africa.
 - 8.6 Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.
9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at _____

Date _____

For and behalf of the Bank

Bank Signatory: _____

Bank Signatory: _____

Witness: _____

Witness: _____

Bank's seal or stamp

PART C2: PRICING DATA / ACTIVITY SCHEDULE

TSC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	2
C2.2	The <i>price list</i> (see activity schedule)	3

SEE ACTIVITY SCHEDULE ANNEXURE 1 (This Activity Schedule is to be completed for costing purposes)

C2.1 Pricing assumptions: Option A

The *conditions of contract*

How work is priced and assessed for payment

Clause 11 in NEC3 Term Service Contract, June 2005 (TSC3) core clauses and Option A states:

- Identified and defined terms** 11
- 11.2 (12) The Price List is the *price list* unless later changed in accordance with this contract.
- (17) The Price for Services Provided to Date is the total of
- the Price for each lump sum item in the Price List which the *Contractor* has completed and
 - where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the *Contractor* has completed by the rate.
- (19) The Prices are the amounts stated in the Price column of the Price List. Where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate.

This confirms that Option A is a priced contract where the Prices are derived from a list of items of *service* which can be priced as lump sums or as expected quantities of *service* multiplied by a rate or a mix of both.

Function of the Price List

Clause 54.1 in Option A states: "Information in the Price List is not Service Information". This confirms that instructions to do work or how it is to be done are not included in the Price List but in the Service Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Service in accordance with the Service Information". Hence the *Contractor* does **not** Provide the Service in accordance with the Price List. The Price List is only a pricing document.

Link to the *Contractor's* plan

Clause 21.4 states "The *Contractor* provides information which shows how each item description on the Price List relates to the operations on each plan which he submits for acceptance". Hence when compiling the *price list*, the tendering *Contractor* needs to develop his first clause 21.2 plan in such a way that operations shown on it can be priced in the *price list* and result in a satisfactory cash flow in terms of clause 11.2(17).

Preparing the *price list*

It will be assumed that the tendering *Contractor* has read Pages 14, 15 and 73 of the TSC3 Guidance Notes before preparing the *price list*. Items in the *price list* may have been inserted by the *Employer* and the tendering *Contractor* should insert any additional items which he considers necessary. Whichever party provides the items in the *price list* the total of the Prices is assumed to be fully inclusive of everything necessary to Provide the Service as described at the time of entering into this contract.

1. As the *Contractor* has an obligation to correct Defects (core clause 42.1) and there is no compensation event for this unless the Defect was due to an *Employer's* risk, the lump sum Prices and rates must also include for the correction of Defects.
2. If the *Contractor* has decided not to identify a particular item in the *price list* at the time of tender the cost to the *Contractor* of doing the work must be included in, or spread across, the other Prices and rates in the *price list* in order to fulfil the obligation to complete the *service* for the tendered total of the Prices.
3. There is no adjustment to lump sum prices in the *price list* if the amount, or quantity, of work within that lump sum item of *service* later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event. See Clause 60.1.
4. Hence the Prices and rates tendered by the *Contractor* in the *price list* are inclusive of everything necessary and incidental to Providing the *Service* in accordance with the *Service Information*, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk.
5. The *Contractor* does not have to allow in his Prices and rates for matters that may arise as a result of a compensation event. It should be noted that the list of compensation events includes those arising as a result of an *Employer's* risk event listed in core clause 80.1.

Format of the *price list/activity schedule*

Entries in the four columns in the *price list* in section C2.2 are made either by the *Employer* or the tendering *Contractor*. SEE ACTIVITY SCHEDULE ANNEXURE 1 (This activity schedule is to be completed for costing purposes)

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 tendering *Contractor* enters the amount in the Price column only, the Unit, Expected Quantity and Rate columns being left blank.

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

If the *Contractor* is to be paid a Price for an item proportional to the length of time for which a *service* is provided, a unit of time is stated in the Unit column and the expected length of time (as a quantity of the stated units of time) is stated in the Expected Quantity column.

C2.2 The *price list / activity schedule*

C2.2.1 Items of work priced on a lump sum basis - **ACTIVITY SCHEDULE ANNEXURE 1** - (This activity schedule is to be completed for costing purposes)

Task Order	Description	Milestones	Price
1	Forms part of Phase 1: Phase 1a of the URS - Development of waste management optioneering studies for the removal of radioactive waste from the Affected Property, considering the following scenarios: - a) on-site storage. b) disposal at an authorised facility; and c) reprocessing within international norms and best practices. For the acceptance by the <i>Service Manager</i> .	Submission of the optioneering study for review - 60%	
		*Acceptable of the optioneering study - 40%	
2	Forms part of Phase 1: Phase 1b of the URS - Development of a Solid Radioactive Waste Disposal Plan (SRWDP) and supporting documentation in accordance with the Radioactive Waste Management Policy and Strategy for the Republic of South Africa 2005 {based on scenario b)} for submission for review, acceptance and authorisation, as applicable, namely the <i>Service Manager</i> , National Nuclear Regulator (NNR), National Radioactive Waste Disposal Institute (NRWDI), National Committee on Radioactive Waste Management (NCRWM) and the Minister of the Department of Mineral Resources and Energy (DMRE). ** Note Acceptance means accepted by the Service Manager, reviewed by the Employer (e.g., KORC) and accepted by the identified statutory entity, e.g., NNR, NRWRI, NCRWM, and DMRE and ALL RESPONDING COMMENTS ARE CLOSED OUT	Submission of a Solid Radioactive Waste Disposal Plan - 60%	
		Acceptance by the <i>Service Manager</i> of the Solid Radioactive Waste Disposal Plan - 20%	
		Final acceptance of Solid Radioactive Waste Disposal Plan by the DMRE - 20%	
		Submission of approval from an Authorised Facility that waste meets criteria – 60%	
		Waste acceptance / certificate from an Authorised Facility – 40%	

3	Forms part of Phase 2 of the URS Development of a licensing framework , and safety cases with supporting documents to obtain permission inter alia, for the removal, transportation, security and disposal of the radioactive waste ** Note Acceptance means accepted by the <i>Service Manager</i> , reviewed by the Employer (e.g., KORC) and accepted by the identified statutory entity, e.g., NNR, NRWRI, NCRWM, and DMRE and ALL RESPONDING COMMENTS ARE CLOSED OUT	Submission of a Licensing Framework - 60%	
		Acceptance of Licensing Framework – 40%	
		Submission of Safety Cases and identified supporting documents / reports / methods – 60%	
		Acceptance of Safety Cases and identified supporting documents / reports / methods – 40%	
4	Forms part of Phase 3 of the URS <ul style="list-style-type: none"> Implementation of the approved SRWDP, based on scenario b) of the optioneering study, including the transport from the Affected Property to an authorised facility with appropriate security measures. Transportation Packaging Design and Manufacturing Obtain all acceptances for the waste disposal delivery to the authorised facility; Transportation and Off-Loading 	Submission of the design package for the transport containers (e.g., approved drawings, material specs, fabrication specs) for review - 60%	
		Acceptance of the design package for the transport containers - 20%	
		Manufacturing of the transport containers – 20%	
		Submission of transportation (i.e., rigging, characterisation, etc) documentation for review - 20%	
		Acceptance of transportation (i.e., rigging, characterisation, etc) documentation - 20%	

		Loading of radioactive waste within its packaging, transportation from the Affected Property, and off-loading at the authorised facility – 60%	
		Submission of EOIR – of all QADP documentation, including final certificate of closure issued by <i>Contractor</i> – 60%	
		Acceptance of EOIR – for all QADP documentation, including final certificate of closure issued by <i>Contractor</i> – 40%	

The total of the Prices

C2.2.2 Rates for Compensation Events

1. Labour rates

The following hourly rates shall be applied for determining Defined Cost in the assessment of Compensation Events and/or of Termination.

Prices are all-inclusive of cost, overhead and profit. No Fee or Overhead percentage is applied to these rates.

Labour categories at the <i>Contractor</i> facilities and the Affected Property	Hourly Rate

1.1 Subcontractor Labour

SubContractor Fee percentage is applied to the rates below:

Labour categories for subcontracted labour at the Affected Property	Hourly Rate

1.2 Equipment daily rates (excl. personal)

SubContractor Fee percentage is applied to the Equipment daily rates below:

Description	Rate per day

PART C3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	<i>Employer's Service Information</i>	69
C3.2	<i>Affected Property Information</i>	1
C3.3	<i>Contractor's Service Information</i>	#
	Total number of pages	

C3.1: EMPLOYER'S *SERVICE* INFORMATION

1 Description of the *service*

The *service* is for the disposal of original Unit 1 Reactor Pressure Vessel Closure Head (RPVCH) and Unit 2 RPVCH with Control Rod Drive Mechanisms (CRDM's) from the Koeberg Nuclear Power Station (KNPS).

1.1 Executive overview

During Koeberg Nuclear Power Station (KNPS) Outages 116 and 225 the Unit 1 and 2 Reactor Pressure Vessel Closure Heads (RPVCH) and Unit 2 Control Rod Drive Mechanisms (CRDMs) were replaced, respectively. The original RPVCHs are currently under interim storage at the Koeberg Nuclear Power Station (KNPS) Low Level Waste Building (LLWB) together with the Unit 2 CRDMs.

The RPVCHs and CRDMs, which are considered contaminated and radioactive, are to be removed from Koeberg Nuclear Power Station (KNPS) for disposal at an authorised facility for radioactive waste or be reprocessed.

The *Contractor's services* inter alia is the preparation and documentation of all necessary studies, plans, programs, safety cases, methods & procedures to support Eskom's application for the disposal of the RPVCHs and CRDMs from the affected property, i.e., KNPS, subject to RSA statutory and *Employer* requirements, accepted best practices, and in a safe and responsible manner.

The *Contractor's* activities related to the disposal and / or reprocessing of solid radioactive waste are as follows but not limited to, in terms of **User Requirement Specification (URS) reference DSG-310-365 Rev 3 read with the Waste Management Guideline reference 239-QGA-001(T) Rev 0:**

- Phase 1a: Development of **waste management optioneering studies** for the removal of radioactive waste from the Affected Property for the acceptance by the *Service Manager*, considering the following scenarios: -
 - a) on-site storage.
 - b) disposal at an authorised facility; and
 - c) reprocessing within international norms and best practices.
- Phase 1b: Development of a **Solid Radioactive Waste Disposal Plan (SRWDP)** and supporting documentation in accordance with the Radioactive Waste Management Policy and Strategy for the Republic of South Africa 2005 *{based on scenario b)}* for submission for review, acceptance and authorisation, as applicable, namely the *Service Manager*, National Nuclear Regulator (NNR), National Radioactive Waste Disposal Institute (NRWDI), National Committee on Radioactive Waste Management (NCRWM) and the Minister of the Department of Mineral Resources and Energy (DMRE);
- Phase 1b: Development of a **licensing framework, and safety cases** with supporting documents to obtain permission inter alia, for the removal, transportation, security and disposal of the radioactive waste, supported by applicable studies, safety cases, procedures, methods and other for the *Service Manager's* and NNR acceptance.
- Phase 1b: Perform **radiological characterisation of the RPVCHs and CRDMs**, to develop a radiological packaging design and specification for the manufacture and supply, including applicable shielding for the radioactive waste transport and either disposal or reprocessing; for acceptance by the *Service Manager*.

- Phase 2: Submission for **all submissions of statutory/regulatory approvals** related to acceptance of radioactive waste, transport and disposal or reprocessing of radioactive waste;
- Phase 3: Obtain **approvals and acceptance for the waste disposal delivery** to the authorised facility; and
- Phase 3: **Perform all rigging (handling) and transportation activities** at the affected property, enroute and delivery to the authorised facility of the RPVCHs and CRDMs, subject to the documented plans and procedures, as accepted by the Service Manager and **regulatory approvals and transport permissions**, in accordance with appropriate security measures.

1.2 Objectives

The objective of the contract is to -

- a) Contract with a competent *Contractor* to execute the project over three (3) Phases to enable Eskom KNPS to remove the RPVCHs and CRDMs from the affected property, subject to the *Service Manager's* accepted Optioneering Study option, and in accordance with RSA statutory requirements, authorities and permissions.
- b) Obtain DMRE approval for the Solid Radioactive Waste Disposal Plan (SRWDP) to remove the RPVCHs and CRDMs from the affected property for disposal at an authorised facility.
- c) Obtain acceptance of the radioactive waste after safely transporting the RPVCHs and CRDMs to an authorised facility.

1.3 Employer's requirements for the service

1.3.1 The Employer's requirements and purpose of the service are as follows:

The *Contractor* is responsible for the project planning (i.e. documented programme), coordination, documenting (including supporting Eskom to obtain applicable license/approval) and managing the execution of all activities to achieve the contract objectives and in accordance with the Republic of South Africa (RSA) regulatory framework; to remove the described radioactive waste from the Affected Property, transport and deliver all items to an authorised facility for disposal or reprocessing.

The *Contractor* develops a Solid Radioactive Waste Disposal Plan (SRWDP) and supporting documents within a licensing framework including, safety cases, procedures, methods, specifications and reports e.g., radiological characterisations, decontamination, dose exposure reports, and risk assessments, as applicable to support all authorisations, permissions and license approvals.

1.3.2 Project Phase approach

The User Requirements Specification (URS) reference DSG-310-365, is applicable to the following activities related to the disposal (on-site or authorised facility) or reprocessing of solid radioactive waste, namely the KNPS Unit 1 RPVCH and Unit 2 RPVCH with CRDMs, hereafter referred to as "radioactive waste":

The phases to be performed by the *Contractor* are set out below:

1.3.2.1 Phase 1a: Waste Management Optioneering Studies

Development of waste management optioneering studies for the removal of radioactive waste from the Affected Property, considering the following **scenarios**: -

- a) on-site storage;

- b) disposal at an authorised facility; and
 - c) reprocessing within international norms and best practices;
- for the acceptance by the *Service Manager*.

Note: A road transport route study to an authorised facility, (namely Vaalputs), was performed under the Steam Generator Replacement Project – see URS informative reference “1407CPT-0882: Transportation Study for the Delivery of the RSGs and the Delivery of the OSGs for KNPS”.

1.3.2.2 Phase 1b: Waste Management Plan

Development of a **Solid Radioactive Waste Disposal Plan (SRWDP)** and supporting documentation in accordance with the Radioactive Waste Management Policy and Strategy for the Republic of South Africa 2005 {based on scenario b)} for submission for review, acceptance and authorisation, as applicable, namely the *Service Manager*, National Nuclear Regulator (NNR), National Radioactive Waste Disposal Institute (NRWDI), National Committee on Radioactive Waste Management (NCRWM) and the Minister of the Department of Mineral Resources and Energy (DMRE).

1.3.2.3 Phase 2: Development of the Licensing Framework

Development of a **licensing framework, and safety cases** with supporting documents to obtain permission inter alia, for the removal, transportation, security and disposal of the radioactive waste.

1.3.2.4 Phase 3: Implementation of the Waste Management Programme

Implementation of the **approved SRWDP**, based on the optioneering scenario b) above, including the transport from the Affected Property to an authorised facility with appropriate security measures; including

- Transportation Packaging Design and Manufacturing
- Obtain all acceptances for the waste disposal delivery to the authorised facility;
- Transportation and Off-Loading

The above phases must take into account the process framework and guidance set out in the **Waste Management Guideline 239-QGA-001(T) Rev 0** for the RPVCHs with CRDMs removal from the Affected Property. The guideline document also elaborates on the authorities that are to provide approval, issue authorisations and licenses, to support this scope of work. For example –

- Ministerial approval from the Department of Mineral Resources and Energy (DMRE) for the SRWDP in accordance with requirements.
- National Committee on Radioactive Waste Management (NCRWM) recommendation in accordance with the Radioactive Waste Management Policy of the SRWDP.
- National Radioactive Waste Disposal Institute (NRWDI) for acceptance of radioactive waste at an authorised facility within RSA.
- National Nuclear Regulator (NNR) for the removal and transportation of radioactive material from a licensed site, namely KNPS.
- The *Service Manager's* acceptance and the *Employer's* review as the Nuclear License holder for KNPS of all documentation, plans and finalisation.
- Other authorities (e.g. roads authorities, JPC, security), namely provincial, local and Koeberg management structures for documents and permits.

2 Interpretation and terminology

The *Contractor* is to note that any reference to an *Employer's* document or drawing shall always mean the latest revision available unless a specific revision is purposefully identified.

2.1.1 Terminology

Term	Description
Shall	Denotes a requirement.
Should	Denotes a recommendation.
May	Denotes permission.
Action of the <i>Service Manager</i>	The actions the <i>Service Manager</i> has to perform in fulfilling expressed duties, under the NEC TSC.
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 Works Information.
Design	The process of devising a system, component, or process to meet the <i>Employer's</i> requirements, as specified in the Works Information. 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> .
Others	Others working on this project as required by the <i>Employer</i> are as follows: <ul style="list-style-type: none"> • National Nuclear Regulator (NNR), • National Radioactive Waste Disposal Institute (NRWDI), • National Committee on Radioactive Waste Management (NCRWM), • Department of Mineral Resources and Energy (DMRE) • <i>Employer's</i> Authorised Inspection Agency; • <i>Employer's</i> consultants; The list is updated, by the <i>Service Manager</i> , each time a third party's contract is placed by the <i>Employer</i> or Others change.
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".
Verification of Defined Cost	The substantiation of, and assessment of contractual entitlement to, reimbursement of the costs within the <i>Contractor's</i> applications for payment of Defined Cost.
Work Plan	A work plan is a project management plan by another name. It clearly articulates and outlines the steps needed to achieve a department-level or company-level end goal by setting milestones,

Term	Description
	deliverables, resources, budgetary requirements, and a timeline to weave it all together.
Site Work Package	A Site Work Package is a group of related tasks within a project. Because they look like projects themselves, they are often thought of as sub-projects within a larger project. Work packages are the smallest unit of work that a project can be broken down to when creating your Work Breakdown Structure (WBS).
Public domain	Published in any public forum without constraints (either enforced by law, or discretionary)
Controlled disclosure	Controlled disclosure to external parties (either enforced by law, or discretionary)
Confidential	the classification given to information that may be used by malicious/opposing/hostile elements to harm the objectives and functions of the <i>Employer</i>
Secret	The classification given to information that may be used by malicious/opposing/hostile elements to disrupt the objectives and functions of the <i>Employer</i>
Top Secret	The classification given to information that may be used by malicious/opposing/hostile elements to neutralise the objectives and functions of the <i>Employer</i>
Authorised facility	A facility holding written permission issued by the Minister of DMRE in terms of Section 55 read with Section 46 of the Nuclear Energy Act, No. 46 of 1999
Contamination	Radioactive substances on surfaces or within solids, liquids, or gases (including the human body), where their presence is unintended or undesirable, or the process giving rise to their presence in such places
Decontamination	The complete or partial removal of contamination by a deliberate physical, chemical or biological process
Disposal	Emplacement of waste in an appropriate facility without the intention of retrieval
Radioactive waste	Waste that contains, or is contaminated with, radionuclides at concentrations or activities greater than clearance levels as established by the regulatory body
Safety case	A collection of arguments and evidence in support of the safety of a facility or activity
Special arrangement	Those provisions, approved by the competent authority, under which consignments which do not satisfy all the applicable requirements of the International Atomic Energy Agency (IAEA) transport regulations, may be transported
Waste characterisation	Determination of the physical, chemical and radiological properties of the waste to establish the need for further adjustment, treatment or

Term	Description
	conditioning, or its suitability for further handling, processing, storage or disposal
Low and Intermediate Level Waste (Short Lived) (LILW-SL)	Radioactive waste with low or intermediate short-lived radionuclide and / or low long-lived radionuclide concentrations
Licensing Framework	a documented schedule of deliverable documents to support an applicable license, authorisation and permit issued by the regulatory authority
PRL status	This is the initial version of the document submitted to the <i>Service Manager</i> for comments and review
FIN status	This version of the document takes into account the resolution of the <i>Service Manager's</i> comments
CFC status	This version of the document is the final version of the document by the <i>Service Manager</i>

2.1.2 Abbreviations

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
ACP	Access Control Point
ASME	American Society of Mechanical Engineers
BATNEEC	Best Available Technology Not Entailing Excessive Cost
Bq	Becquerel
CAS	Central Alarm Station
cm	Centimetre
CRDM	Control Rod Drive Mechanism
DMRE	Department of Mineral Resources and Energy
ECC	Emergency Control Centre
EIA	Environmental Impact Assessment
ESKOM	<i>Employer</i>
FFD	Fitness for Duty
g	Gram
GPS	Global Positioning System
IAEA	International Atomic Energy Agency

KNPS	Koeberg Nuclear Power Station
LILW-SL	Low and intermediate level waste – short lived
LLWB	Low Level Waste Building
NCRWM	National Committee on Radioactive Waste Management
NDA	Non-Disclosure Agreement
NEMA	National Environmental Management Act 1998, (Act No 107 of 1998)
NNR	National Nuclear Regulator
NRWDI	National Radioactive Waste Disposal Institute
OE	Operating Experience
OHS Act	Occupational Health and Safety Act, No. 85 of 1993 as amended
QCP	Quality Control Plan
RP	Radiation Protection
RPVCH	Reactor Pressure Vessel Closure Head
RSA	Republic of South Africa
RWMP	Radioactive Waste Management Plan
SRWDP	Solid Radioactive Waste Disposal Plan
TD&RM	Technical Documentation and Records Management
TSC	NEC3 Term Services Contract
URS	User Requirement Specification
µSv	micro-Sievert
WAC	Waste Acceptance Criteria

3 Description of the services

3.1 Requirements Review

The *Contractor* is to review and apply the requirements set out in the User Requirement Specification reference DSG-310-365 Rev 3 read with the Waste Management Guideline reference 239-QGA-001(T) Rev 0 and all referenced documents to these identified documents.

The *Contractor* is to apply the requirements of the referenced documents during the preparation and development of all documents and activities to be performed under the scope of the Contract.

The *services* are covered under three (3) phases.

3.2 Phase 1: Optioneering Studies, Waste Management Plan and Radiological Characterisation

3.2.1 Phase 1a: Waste Management Optioneering Studies

The *Contractor* is to perform such investigations and reviews as necessary to prepare and document for acceptance and review radioactive waste management optioneering studies. The optioneering studies are to describe the following **scenarios**:

- a) on-site storage,
- b) disposal at an authorised facility, and
- c) reprocessing in accordance with international norms and best practices at an authorised facility.

The scenarios are to address the following topics but not limited to the topics below:

- a) Current legal and licensing framework.
- b) Characterisation of the solid waste including packaging and shielding.
- c) Remedial practices based on Best Available Technology Not Entailing Excessive Cost (BATNEEC).
- d) Nuclear Safety and Decontamination Methods.
- e) Solution risks.
- f) Cost implications.
- g) Proposed best solution.

3.2.2 Phase 1b: Waste Management Plan

The *Contractor* is to collate all information and prepare and document the Solid Radioactive Waste Disposal Plan (SRWDP), based on the *Service Manager's* accepted option from the optioneering study (scenario b), for the disposal of the radioactive waste from the Affected Property.

Subject to the *Service Manager* acceptance, the SRWDP in compliance with the requirements of the radioactive waste management policy and strategy for the Republic of South Africa, 2005 as per Department of Minerals and Energy, the plan will be submitted to identified statutory authorities for authorisation, licensing or permission.

3.2.3 Phase 1b: Radiological Characterisation

The *Contractor* is to prepare and document for acceptance radiological characterisation procedure / method applying the metrics set out under the User Requirement Specification and the Waste Management Guideline document and applicable referenced documents.

The *Contractor* is to prepare and document for acceptance a procedure for radiological and chemical characterisation of the radioactive waste. The radiological characterisation process is to include the use of actual measurements and calculations. The use of a radiological protection / shielding software/ code is to be submitted to the *Service Manager* for acceptance, for the determination of the activity of the respective radionuclides. Internationally accepted

characterisation methods and Operational Experience (OE) is to be applied, by the *Contractor*, and the classification is done in accordance with the IAEA transport regulations, Solid Radioactive Waste Management Plan for Koeberg Nuclear Power Station (Ref: 240-113228853) and the Waste Acceptance Criteria for Vaalputs (Ref : VLP-WAC-001 – NECSA). The method used must be scientifically sound and acceptable to the *Service Manager, Employer* and the NNR.

The required information to be supplied by the *Contractor* includes:

- Activity distribution.
- Total activity concentration.
- The dose rates on the external surfaces of the radioactive waste.
- The radionuclides and radioactivity levels on the accessible and inaccessible parts of the radioactive waste.
- The total activity and activity concentration of long-lived alpha emitting radionuclides.
- The total activity and activity concentration of long-lived beta/gamma emitting radionuclides.
- The radioactivity of pure beta emitting radionuclides.
- Fixed and loose external contamination levels.

The main studies/actions to be performed, by the *Contractor*, are:

- Review characterisation options – radiological and chemical.
- Perform literature review on characterisation methodology, decontamination techniques on the Radioactive waste and define key considerations for inclusion in the review i.e., external measurements, internal measurements, and modelling.
- Prepare and document a characterisation model and procedures (i.e., methodologies).
- Take into account/apply international best practices.

The list of radionuclides must be exhaustive enough to include all the radionuclides that are expected to be on the inaccessible parts of the radioactive waste. The dose rates and radioactivity must be reported in units of $\mu\text{Sv/h}$, Bq, Bq.g^{-1} and Bq.cm^{-2} . The *Contractor* determines any other radiological data that will be required for the radioactive waste classification of Unit 1 RPVCH and Unit 2 RPVCH with CRDMs in terms of the Radioactive Waste Management Policy and Strategy for the RSA 2005, Waste Management Guideline (Rev:239-QGA-001(T)) for the RPVCH with CRDM removal from the Accepted Property, Waste Acceptance Criteria for Vaalputs (Ref: VLP-WAC-001 – NECSA) and the IAEA transport regulations.

The *Contractor* is to conduct the radiological characterisation to establish a baseline profile at current storage conditions and after having applied radiological protection measures (i.e. packaging) and before transportation.

3.2.4 Phase 1b: Decontamination Methods

The outcome of the *Contractor's* radiological waste characterisation must determine whether decontamination methods are to be applied. The study to include, as a minimum, decontamination means to achieve the transport for either disposal or reprocessing.

3.2.5 Phase 1b: Packaging and Shielding for Disposal

The *Contractor* is to:

- Investigate suitable packaging and shielding methods to meet the IAEA Transport requirements, to facilitate the transportation from KNPS to an authorised facility.
- Evaluate International Operating Experience (OE) for the disposal of the radioactive waste.
- Determine the suitable packaging or shielding material to be used for the packaging of the radioactive waste.
- Manufacture and supply packaging and shielding, considering the accepted option from the optioneering study Phase 1.
- Make recommendation, to the *Employer*, regarding the preferred transportation packaging method for implementation that considers regulatory, technical, dimension, international Operating Experience (OE), safety, and economic considerations.

3.2.6 Phase 1b: Disposal Plan Framework Documents

The *Contractor* is to prepare and document inter alia the following documents for the *Service Manager* acceptance, based on the *Service Manager's* accepted option from the optioneering study (scenario b).

The following documentation are described in the User Requirement Specification and the Waste Management Guideline:

- a) Waste Removal Plan: including topics Radioactivity and Dose Rate Survey, Waste Characterisation and Quantification, Packaging characterisation, Risk Assessment, Rigging and Site Transportation Plan, Public Participation, Authority or licence of the Waste Removal Plan.
- b) Transport Plan: including topics of the Travel Routes procedure/s – considering the classification the Radioactive Waste, Transport Vehicle Assessment, Risk Assessment, Public Participation, Authorisations / Transport Permits from Provisional / Local authorities and an Emergency Transport Plan.
- c) Security Plan: provision of such information to the Koeberg Security group to document the Security Plan, such as the nature and extent of the project considering the accepted optioneering study to mitigate the security risks and threats; to obtain JPC approval.
- d) Disposal Plan: Classification and Characterisation of Waste, Packaging requirements, Nature of disposal at an authorised facility, Public Participation - consultation with the public through public safety information forums, Risk Assessment, Repository Operator, namely NRWDI acceptance authority or licence.

The *Contractor* is to further prepare and document for acceptance supporting documentation namely safety cases, procedures, methods, design specification, radiological characterisations and radiological protection (e.g. packaging) measures and designs; which identify inter alia the scope of the topic, responsibilities, methodologies /logical steps, technical requirements, form of outcomes/results.

3.2.7 Phase 1b: Document updates

The *Contractor* is to address any and all response comments from the *Service Manager* or any applicable Statutory authority related to any document prepared by the *Contractor* and submitted as part of this Contract.

3.2.8 Phase 1 : Table of deliverables and responsibilities as per the URS

Description	Deliverable	Contractor	Service Manager / Employer
Phase 1a: Waste management optioneering studies	<ul style="list-style-type: none"> • Documented Optioneering Studies considering the scenarios • Application of legal and prescribed documents • Propose recommendations 	<ul style="list-style-type: none"> • Prepare • Perform literature review • Develop and document optioneering studies • Approve 	<ul style="list-style-type: none"> • Review for acceptance • <i>Employer</i> review
Phase 1b: Solid Radioactive Waste Disposal Plan	<ul style="list-style-type: none"> • Develop the Solid radioactive waste disposal plan • Develop supporting plans, studies, reports, characterisations, methods 	<ul style="list-style-type: none"> • Prepare Plan • Approve • Collation of all supporting documentation and information • Address all and any document comments 	<ul style="list-style-type: none"> • Review for acceptance • Submission to NNR for acceptance • Submission to NRWDI for acceptance • Submission to NCRWM for recommendation to the Minister of DMRE • Submission to the Minister of Mineral Resources and Energy for acceptance

Description	Deliverable	Contractor	Service Manager / Employer
Radiological Waste Characterisation	<ul style="list-style-type: none"> • Characterisation model and procedures/methods • Procedure for radiological and chemical characterisation of the radioactive waste • Use of accepted radiological protection / shielding software/code • Conduct a characterisation survey/ measurement to create a baseline profile – as per current storage • Conduct a characterisation survey/ measurement after radiological protection measures applied and before transportation 	<ul style="list-style-type: none"> • Review characterisation options • Perform literature review • Develop characterisation model and procedures • Measure radiological data • Create profile of radiation for waste characterisation; as current storage and after radiological protection measures applied • Prepare and document a Radiological characterisation report • Approve 	<ul style="list-style-type: none"> • Review for acceptance • Review of radiological protection / shielding software/code for acceptance • Submission to NNR for acceptance
Decontamination methods	<ul style="list-style-type: none"> • Decontamination methods/procedure 	<ul style="list-style-type: none"> • Decontamination Study/ create profile of radiation • Preparation • Approve 	<ul style="list-style-type: none"> • Review for acceptance • Submit to NNR for acceptance
Packaging and shielding for disposal	<ul style="list-style-type: none"> • Design of radiation protection transportation packaging • Fabricate radiation protection transportation packaging • Assemble and fit radiation protection transportation packaging 	<ul style="list-style-type: none"> • Investigate packaging and shielding methods • Prepare and approve Packaging and shielding report • Prepare and approve a final protected radiological characterisation report 	<ul style="list-style-type: none"> • Review for acceptance • Submit to NNR for acceptance

Description	Deliverable	Contractor	Service Manager / Employer
	<ul style="list-style-type: none"> • Measure radiation after installation of radiation protection transportation packaging 		
Disposal Plan framework documents	<ul style="list-style-type: none"> • Documents - <ul style="list-style-type: none"> ○ Waste Removal Plan ○ Transport Plan ○ Security Plan ○ Disposal Plan • Supporting documents in the form of safety cases, procedures, methods, specifications, Risk Assessments, Rigging & Transport Plans, Public Participation, Authority / Licensing / Permits • Prepare and submit applicable information to KNPS Security Group to develop the Security Plan 	<ul style="list-style-type: none"> • Prepare • Research + Develop + document • Perform literature review • Approve 	<ul style="list-style-type: none"> • Review for acceptance • Submit to NNR for acceptance • Submit to NRWDI for acceptance
Contractor support	<ul style="list-style-type: none"> • Support the <i>Service Manager</i> • Provide input and make presentations to identified Authorities • Lead discussions as necessary 	<ul style="list-style-type: none"> • Provide expert support at all forums /meetings /engagements with identified Authorities, when required 	<ul style="list-style-type: none"> • Review for acceptance

3.3 Phase 2: Development of the Licensing Framework

The *Contractor* is to prepare, document and maintain a **licensing framework and safety cases**, identifying all documentation and submission dates to support the Solid Radioactive Waste Disposal Plan (SRWDP) submission, and safety cases with supporting documents to obtain permission for the removal, transportation, security and either disposal or reprocessing of the radioactive waste.

In terms of Phase 2 of the Project the *Contractor* is to align and organise all subsequent requirements subject to the radioactive waste management optioneering study accepted by the *Service Manager* and reviewed by the *Employer* under Phase 1.

The *Contractor* is to prepare the authorisation and license application/s for the removal, transportation, security and either disposal or reprocessing of the radioactive waste for submission to the applicable authorities, e.g., Eskom, NNR, NRWDI, and Others. Refer also to the Waste Management Guideline for the process framework.

3.3.1 Development of Licensing Framework

The *Contractor* is to prepare, document and maintain a **licensing framework** to initiate communication with the NNR and other applicable authorities, to obtain agreement for the submission of the licensing/authority/approval deliverables (i.e. safety cases & documentation) for all aspects associated with the disposal of the radioactive waste.

A typical licensing framework for the transportation and either disposal or reprocessing of radioactive waste includes the following:

- Purpose;
- Scope;
- Applicable documents;
- Project Summary;
- Project hazard overview and fundamental safety functions;
- Project phases and submittal plan (i.e. timing); and
- Project safety case, procedural and supporting document submissions.

The *Contractor* is to prepare and document all applications for submission for the licensing approvals related to the radioactive waste disposal including continued temporary storage at KNPS, removal, transportation, security and either disposal or reprocessing.

The licensing submissions are to be made by the *Employer*, but not limited to the following entities: the NNR, Department of Mineral Resources and Energy, Department of Transport and Public Works (Provincial), local authorities, National Radioactive Waste Disposal Institute (NRWDI), as identified.

3.3.2 Licensing Framework Supporting Topics

The licensing framework is to inter alia cover the following:

3.3.2.1 Waste Characterisation

The *Contractor* is to perform radiological waste characterisation of the radioactive waste. The radiological characterisation process is to include the use of actual measurements and calculations. The method used must be scientifically sound and acceptable to the *Employer* and to the NNR.

3.3.2.2 Remedial Practices

The *Contractor* is to determine remedial best practices in accordance with the accepted optioneering study that are to be applied to maintain or reduce radiation and dose exposure levels emanating from the radioactive waste, for the removal from KNPS, transportation and disposal interventions.

The remedial practices to consider, at least:

- Waste Acceptance Criteria for Vaalputs
- IAEA transport regulations
- Dose exposure to workers and members of the public

3.3.2.3 Waste Handling Plans (Rigging)

The *Contractor* is to prepare and document waste handling studies for acceptance, to determine the most suitable method for loading and off-loading the radioactive waste at KNPS and the authorised facility or for reprocessing. The following are to be applied to the study:

- Regulatory requirements;
- KNPS applicable process documents and procedures for rigging and handling reference KSA-132;
- Technical, operational and safety requirements and options;
- Availability and flexibility of load handling means; and
- Economic trade-offs.

The *Contractor* is to perform and manage all handling (rigging) activities at both the Affected Property and at the authorised facility.

3.3.2.4 Risk Assessments

The *Contractor* is to prepare and document applicable risk assessment studies considering the nature of the phase of the contract, the activity being performed under the radioactive waste management project. The risk assessment is to identify all events or conditions affecting the project objectives including schedule, cost, and mitigations. Refer also to the Waste Management Guideline 239-QGA-001(T). The risk assessment will be subject to acceptance by the *Service Manager* and Other's reviews.

3.3.2.5 Public Awareness Programme

The *Contractor* is to prepare and document a Public Awareness Programme, per applicable activity, which is to be subject to acceptance by the *Service Manager* and review by the *Employer*, NNR and Other identified authorities. The Public Awareness Programme is to be influenced by early engagement with the affected authorities to obtain alignment and insight to the requirements. The *Contractor* is to ensure the licensing framework references the Public Awareness Programme.

3.3.2.6 Preparation of Safety Cases

The *Contractor* is to prepare and document **all safety case documents**, required to support obtaining all approvals/licenses/authorisations, including for the KNPS temporary storage, waste removal, transport and either disposal or reprocessing of the radioactive waste at an authorised facility.

Inter alia the *Contractor* is to determine the metallurgical corrosion rates and leaching rates of the radioactive waste for use in the safety case and the rate of migration of radioactivity into ground water. The dose to the public will be assessed for the different periods, including the post-closure period. The annual dose estimate will be compared to the limit under the authorised facilities license conditions.

The *Contractor* is to review the results of a safety assessment of credible accidents associated with the handling and transportation of radioactive waste and apply as necessary to the documenting of safety cases. The dose that will be incurred by the workers and members of the public are to be determined for all credible postulated accidents.

3.3.2.7 Waste Disposal Acceptance Criteria

The *Contractor* is to establish and verify the radioactive waste acceptance criteria as issued by the authorised disposal facility.

The current authorised facility (Vaalputs) for the disposal of radioactive waste is licensed to dispose of Low and Intermediate Level Waste – Short Lived (LILW-SL) in near surface trenches. The Waste Acceptance Criteria (WAC) for Vaalputs VLP-WAC-001 – NECSA prescribes criteria that are to be met before radioactive waste will be accepted for disposal at the authorised facility.

The *Contractor* is to prepare and document for acceptance by the *Service Manager* and approval by the authorised facility to demonstrate that the radioactive waste complies with the requirements of Waste Acceptance Criteria (WAC) for Vaalputs VLP-WAC-001 – NECSA as stipulated below:

- Compliance with standards and acceptance criteria;
- Waste transport;
- Waste form;
- Data pack and documentation; and
- Any other applicable WAC requirement to the project.

3.3.2.8 Packaging and Shielding for Disposal

The *Contractor* is to design, fabricate and supply radiological protection packaging and shielding as accepted by the *Service Manager*. The *Contractor* is to assemble and affix the packaging and shielding prior to transportation.

3.3.2.9 Transportation

The *Employer* commissioned a study that evaluated the different transport routes from KNPS to the authorised facility, namely Vaalputs, for the Steam Generator Replacement (SGR) Project

1407CPT-0882. The study concluded that road transport was the preferred option, if Vaalputs is determined as the preferred option.

The *Contractor* is to review this study for applicability to the radioactive waste and document a Transportation Plan making recommendation as to:

- a) suitable route with identification of all the necessary permits and approvals from the road's authorities applicable;
- b) transportation requirements, including emergency measures, considering those described in the Waste Acceptance Criteria for Vaalputs VLP-WAC-001 – NECSA, and:
- c) packaging, notices, labelling, documentation, etc. required to comply with the IAEA transport regulations and SANS 10229.

3.3.2.10 Approval of the Solid Radioactive Waste Disposal Plan

The *Contractor* is to prepare, approve and submit to the *Employer* the **Solid Radioactive Waste Disposal Plan** together with all documents, supporting documents and reports for timely submission to the identified authority for license approval, permission, or sanction.

3.3.3 Phase 2 Table of deliverables and responsibilities as per the URS

Description	Deliverable	Contractor	Service Manager/ Employer
Licensing Framework	<ul style="list-style-type: none"> • Listing all deliverable documents for licensing/ authority approval • List practical timeframes for submission and to obtain acceptance • Assigned responsibilities 	<ul style="list-style-type: none"> • Prepare, and document the Licensing Framework (includes schedule) • Maintain the Licensing Framework • Address to all and any comments 	<ul style="list-style-type: none"> • Review of acceptance • Submission to NNR for acceptance
Submission of Licensing documents for the NNR and Others	<ul style="list-style-type: none"> • Approve before submission all identified documents as per accepted Licensing Framework • Submit to the <i>Employer</i> all identified documentation for NNR and Other's review 	<ul style="list-style-type: none"> • Address to any and all comments • Support the <i>Employer</i> in presenting any license framework documentation 	<ul style="list-style-type: none"> • Review for acceptance • <i>Employer</i> review • Submit to the NNR and Others for review and or acceptance
Approval of the Solid Radioactive Waste Disposal Plan	<ul style="list-style-type: none"> • Prepare and update the final version of the Solid Radioactive Waste Disposal Plan • Collate supporting documents and package the Solid Radioactive Waste Disposal Plan 	<ul style="list-style-type: none"> • Address to any and all comments • Support the <i>Employer</i> in presenting the Plan documentation • Final review and approve 	<ul style="list-style-type: none"> • <i>Service Manager</i> review for acceptance • <i>Employer</i> reviews • Submit to the Identified authority for review and or acceptance
Public Awareness Programme	<ul style="list-style-type: none"> • Prepare applicable Public Awareness Programme/s • Document the results of the Public Awareness Programmes initiatives 	<ul style="list-style-type: none"> • Coordinate and support the execution the Public Awareness Programme • Collate plans, initiatives and results as part of the SRWDP 	<ul style="list-style-type: none"> • Review and accept • Submit for review to NNR and NRWDI

3.4 Phase 3: Implementation of the Waste Management Programme

The *Contractor* is to align and organise all implementation activities as described under the Solid Radioactive Waste Disposal Plan (SRWDP) as per final sanction by the Minister of DMRE.

The *Contractor* is responsible for the implementation and execution of the sanctioned Solid Radioactive Waste Disposal Plan (SRWDP). The implementation is to focus on the following:

- Securing supporting approved sub-*Contractors* to execute applicable specialist aspects of the programme
- Securing the applicable equipment, tools and resources to execute the programme activities
- Directly managing the execution of the programme implementation
- Closing out the executed activities and submission of close-out certification and documentation

3.4.1 Final radioactivity characterisation

The *Contractor* is to perform and document the results of the radioactive characterisation of RPVCHs and CRDMs waste before transportation and ensure such characterisation is within transportation requirements and the criteria for acceptance of the waste at the authorised facility.

3.4.2 Transportation Packaging Design and Manufacturing

The *Contractor* is to cause the fabrication of the radiological protection packaging and or shielding and cause to be affixed to the RPVCHs and CRDMs to provide for radiological protection and compliance to road transport legislation before transportation.

3.4.3 Disposal Acceptance at an Authorised Facility

The *Contractor* is to ensure acceptance of the radiological waste by the authorised facility and complete/issue any certification or reports declaring the status. Preparing and documenting any final closure reports/certification that is required to be submitted to the Department of Mineral Resources and Energy.

3.4.4 Transportation and Handling

The *Contractor* is responsible to implement and manage all handling (rigging) activities at KNPS and at the authorised facility, in accordance with accepted plans.

The *Contractor* is responsible to implement and manage the transport activities at KNPS, enroute to the authorised facility and at the authorised facility in accordance with accepted plans.

3.4.5 Phase 3 Table of deliverables and responsibilities as per the URS

Description	Deliverable	Contractor	Service Manager/ Employer
Implementation of Solid Radioactive Waste Disposal Plan (SRWDP)	<ul style="list-style-type: none"> Implement all activities identified including: <ul style="list-style-type: none"> Waste removal Waste Characterisation Security precautions Disposal / Reprocessing at an authorised facility Public Participation Risk Assessment/s SHE Project Plan Update the licensing Framework Complete all receipt and delivery documentation Complete acceptance of the waste at the authorised facility Submission to DMRE any finalising documents/reports 	<ul style="list-style-type: none"> Coordinate and manage ALL activities described under the SRWDP Manage sub-<i>Contractor</i> activities Complete all documentation and final reports Support the <i>Employer</i> 	<ul style="list-style-type: none"> Oversight by <i>Service Manager</i> Oversight by identified Others Final / Closing Submissions to Others

4 Management strategy and start up.

4.1 The *Contractor's* plan for the service

4.1.1 Plan constraints and requirements

The *Contractor* prepares and submits at the stated intervals, all programming documentation described in this section, the layout of which is subject to the *Service Manager's* acceptance.

All work performed at KNPS are planned and scheduled in accordance with the requirements stated in:

- KLA-023 for outage related service
- KAA-721 (for non-outage related service – including pre-outage installation service.)

Note: the above makes specific reference to the timelines to be adhered to for scheduling the work. As a general guide, work must be finalised and detailed SAP notifications, SAP work orders and SAP operations raised on the *Employer's* SAP system at least 12 weeks prior start of work. "Finalised" means that the work plans and test procedures are completed, which include any related risks assessments associated with the work to be performed.

4.1.1.1 The Plan

The *Contractor* shows on each Plan which he submits for acceptance:

- the starting dates, access dates, and Completion Dates,
- planned Completion,
- the order and timing of the operations which the *Contractor* plans to do in order to Provide the Service,
- the order and timing of the work of the Employer and Others, as last agreed with them by the *Contractor* or, if not so agreed, as stated in the Service Information or Task Order,
- provisions for:
 - float,
 - time risk allowances,
 - health and safety requirements and
 - the procedures set out in this contract,
- the dates when, in order to Provide the Service in accordance with his programme, the *Contractor* will need:
 - access to a part of the Affected Property, if later than its access date stated on the Task Order,
 - acceptances,
 - Services and other things to be provided by the *Employer* and
 - information from Others,
- for each operation, a statement of how the *Contractor* plans to do the work, identifying the principal Equipment and other resources which he plans to use and
- other information which this Service Information requires the *Contractor* to show on a Plan submitted for acceptance.
- the *services* and work (programmes) of the SubContractors,
- interfaces between SubContractors as well as the interfaces between SubContractors and the *Contractor*,
- all activities defined in the Task Order,
- dates for placement of orders for critical / major Material and Equipment,
- delivery to Affected Property dates for Materials and Equipment,
- the Plan's revision number.

Networks are constructed to reflect the possible (instead of probable) sequences of activities, using resource scheduling to stagger the performance of activities into the most probable sequence.

For the sake of compatibility, the *Contractor* prepares his programme on MS Project 2003 or Primavera 5 V7.0 computerised planning software and utilises it for all planning, progress monitoring and reporting.

4.1.1.2 Reporting on progress and remaining duration

The method for reporting on activities in progress is by remaining duration, i.e., the time, in working days, needed to complete the activity from the report date. Once an activity has started, the remaining duration is assessed for each update.

Automatic reduction of remaining duration as the report date moves forward is not accepted.

4.1.1.3 Actual dates

When Completion of any activity is confirmed by quoting document numbers, these numbers are given in the notes and are appended, e.g., letters of acceptance, suborders, drawings, inspection certificates, delivery notes, etc. The actual start and finish of all activities are reported and included in the Plan.

4.1.1.4 Time Now Date

The 'Time Now Date', unless otherwise agreed between the *Service Manager* and the *Contractor*, is the assessment date of each month.

4.1.1.5 Planning constraints

The *Contractor* makes allowance for incorporation of *Service Manager's* acceptance, review, comments for documents delivered to the *Service Manager* for his/her acceptance.

The *Contractor* does not plan for any *Employer* activities during the period of week 51, week 52 and week 1 of each year unless such a period falls within the implementation window of the *service*. Should any reviews be planned during this period, then the review periods need to be agreed, upfront, with the *Service Manager*.

During refuelling outages, the *Employer's* resources may be limited to perform acceptance reviews, and should any reviews be planned over outage periods, then the review periods need to be agreed, upfront, with the *Service Manager*.

The *Service Manager*, in conjunction with the *Employer* holds a readiness review to assess the *Contractor's* overall readiness to implement the *service*.

Specific items that form parts of this review includes (but are not limited to):

- Documentation (design, site implementation file acceptance)
- Planning (detailed planning including resources and working times)
- Resources (qualification, training plan and mobilisation progress)
- Materials and Equipment (delivered to the Affected Property and accepted/receipt inspected)
- Safety (risk assessments, mitigation and prevention, construction regulations)

Should the review conclude that the *Contractor* has substantially failed to meet the required dates or have failed to take subsequent corrective action to demonstrate a high level of confidence in terms of its readiness to implement the *service*, the *Employer* retains the right to reschedule the implementation of the *service* to the next opportune date with no additional compensation due, by the *Employer*. It is hence critical that the *Contractor* ensures that dates as stated in the Task Order are adhered to and where deviations exist, that effective corrective action is taken to resolve any issue/delay.

4.1.1.6 Planner requirements

The planner is a key person, and his name is included in the Contract Data – Part Two, data provided by the *Contractor*.

4.1.1.7 Monthly progress reporting

The *Contractor* submits to the *Service Manager* a monthly report following the assessment date, but by no later than the last day of each month. The report contains the following information as a minimum requirement:

- Executive summary. (Narrative identifying major movement within the reporting period.)
- Revised Plan for *Service Manager's* acceptance indicating actual progress of work against last Accepted Plan.
- Updated "List of Applicable Documents" which is a list (table) indicating the "current accepted" revision as well as the status of any later revisions of documents considered key in the control of Providing the Service and include the following as a minimum:
 - Contract Quality Plan
 - Scheme Design
 - Installation Design

- Work Plan
- Test Procedures (if required)
- Safety Evaluation (Screening/Evaluation/Justification) if required
- Safety Case if required
- List of Activities which:
 - were completed during current reporting period per discipline, (including the activities of the *Employer* and Others).
 - are in progress (including the activities of the *Employer* and Others);
 - are to be undertaken during the next reporting period per discipline, including the activities of the *Employer* and Others.
 - are behind schedule together with an action plan on how the delays are to be rectified.
- Proposed monthly assessment information which is based on the list of *services* that were completed during the current reporting period.
- Revised schedule which indicates projected future cashflow
- Key issues / Items of concern, Defects and corrective actions.
- Early warning log
- Compensation event log
- Critical activities log

4.1.1.8 Work control interface

Activity Description	Service Manager	Contractor	Requirements	Planning	Additional Notes
Permit to work (PTW's) and or sanction for non-isolation applications.	X	X	<ul style="list-style-type: none"> • The request is completed by a responsible person (RP), in accordance with <i>Employer's</i> plant safety regulation (PSR) procedures. • Permit to Work requests needs to be raised on the <i>Employer's</i> PTW system. • PTW are raised in accordance with <i>Employer</i> procedure KAA-667 	In accordance with Accepted Plan	A responsible person in terms of the OH&S Act is authorised to take out PTW's and SFT's to perform/supervise work and tests on the <i>Employer's</i> plant.
Management and scheduling of interfaces between work control (WC) and the <i>Contractor</i> .	X		<ul style="list-style-type: none"> • The <i>Contractor</i> provides the implementation planning. • The Employer integrates the planning in the overall schedule. The <i>Contractor</i> supports the Employer. • Interface in liaison with the <i>Service Manager</i>. 	As required	Planning as per KLA-023 and KAA-721 are regarded as fixed (ruling timeline).

Activity Description	Service Manager	Contractor	Requirements	Planning	Additional Notes
Notification to <i>Contractor</i> of any changes to schedule.	X		<ul style="list-style-type: none"> The Employer notifies the <i>Contractor</i> of any changes to the implementation schedule due to the Employer activities. 	As required	
Daily production feedback during implementation and problem resolution.	X		<ul style="list-style-type: none"> During implementation the <i>Contractor</i> is available to support the <i>Service Manager</i> during feedback at production feedback meetings. Where required the <i>Contractor</i> attends the meetings. 	As required	
Conclusion	X	X	<ul style="list-style-type: none"> This activity group is part of the management function provided by the <i>Contractor</i> and extends over the duration of the project until Completion of the whole of the service. 	In accordance with Accepted Plan	Deliverable: <ul style="list-style-type: none"> Detailed modification implementation schedules Documentation Release Plan Permit to Work and implementation applications.

4.1.1.9 General

Activity Description	Service Manager	Contractor	Requirements	Planning	Additional Notes
Affected Property organisation chart and roster (<i>Contractor</i>)		X	Names, Main Responsibilities, Telephone numbers / Pagers / Mobile	In accordance with Accepted Plan	
Support activities chart and roster		X	Names, Main Responsibilities, Telephone numbers / Pagers / Mobile	In accordance with Accepted Plan	
Affected Property representatives' chart and roster (<i>Employer</i>)	X		Names, Main Responsibilities, Telephone numbers / Pagers / Mobile	In accordance with Accepted Plan	

Activity Description	Service Manager	Contractor	Requirements	Planning	Additional Notes
Kick-off meeting Implementation (non-outage)	X		<ul style="list-style-type: none"> The <i>Service Manager</i> arranges the meeting; the <i>Contractor</i> ensures that relevant personnel of the Affected Property implementation team as well as project management team are present at the meeting. The venue for the meeting is on the Affected Property, or as agreed. 	In accordance with Accepted Plan	Deliverable: Minutes of the kick-off meeting.
List of <i>Contractor's</i> Sub-Contractors		X	To be supplied to <i>Service Manager</i> for <i>Employer's</i> PQA representative approval.	Minimum 8 weeks prior to start.	
List of Applicable Documents for Implementation		X	The List of Applicable Documents summarises the documentation to be used as reference during the implementation phase of the modification.	In accordance with Accepted Plan	
Acceptance of vehicle access to Affected Property	X		<ul style="list-style-type: none"> Permission for access of a vehicle on the Affected Property must be obtained from the <i>Service Manager</i>. Vehicles are not allowed on the Affected Property unless specific approval is obtained from the Employer and will only be considered for exceptional cases. 	As required	Vehicle/s to comply with the Employer's Vehicle and Driver Safety Management Procedure (240-62946386)
Affected Property access permit applications		X	<i>Contractor</i> to complete forms himself.	As required	
Affected Property access authorisation	X		At completion of all required access training.	10 days duration	

Activity Description	Service Manager	Contractor	Requirements	Planning	Additional Notes
Arranging training and related competency tests / assessments.		X	<ul style="list-style-type: none"> Booking by <i>Contractor</i> - to fit in with normal routine course or <i>Contractor</i> to arrange a separate course for large number of people. Employer requirements relating to training of personnel are detailed in KSA-119 	As required	
Provide training and related competency tests/assessments.	X			As required.	
Qualification and authorisation verification of all personnel implementation work for the <i>Contractor</i> for the service.		X	<ul style="list-style-type: none"> In accordance with the <i>Contractor's</i> quality procedures and: for performing welding activities, the <i>Contractor</i> ensures that all its welders comply to the requirements of KNM-001 for performing non-destructive testing, the <i>Contractor</i> ensures that all its personnel are qualified in compliance with the requirements of KSA-037 for performing scaffolding service, the <i>Contractor</i> ensures that all its personnel are qualified in compliance with the requirements of KSM-031 for performing rigging service, the <i>Contractor</i> ensures that all its personnel are qualified in compliance with the requirements of KSA-132; and for performing lagging service, the <i>Contractor</i> ensures that all its personnel are qualified in compliance with the requirements of KSM-032 	As required	

Activity Description	Service Manager	Contractor	Requirements	Planning	Additional Notes
Checks for Sub-Contractors' agreement		X		As required	
Calibration of equipment	X		<ul style="list-style-type: none"> Where the Employer is required to calibrate equipment, the <i>Contractor</i> ensures that: SAP orders are raised for the Employer to perform the calibrations. These SAP orders specifies in detail all the relevant calibration requirements Equipment for calibration is supplied to the <i>Service Manager</i> at 3 months prior to start implementation (for non-outage modifications) 	To-3 months	To = Start of / implementation window.
Conclusion	X	X	<ul style="list-style-type: none"> This activity group is part of the management function provided by the <i>Contractor</i> and extends over the duration of the project until completion of the whole of the service. 	In accordance with Accepted Plan	Deliverable: <ul style="list-style-type: none"> Affected Property Organisational Chart [Implementation] List of SubContractors List of applicable documents Office requirements Records of authorised personnel involved with construction.

4.2 Processes

This scope of work must take into account the process framework and guidance set out in the Waste Management Guideline 239-QGA-001(T) Rev 0 for the RPVCHs with CRDMs removal from the Affected Property.

4.3 Management meetings

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

4.3.1 Kick-off meeting

Interval:	Location:		Attendance by:		
Once per phase	KNPS		<i>Service Manager, Employer, Contractor, and Others as required</i>		
Activity Description	Service Manager	Contractor	Requirements	Planning	Additional notes
Establishing the project team	X		The <i>Service Manager</i> notifies the names of <i>Employer</i> key persons to support the <i>Contractor</i> with the Provision of the <i>service</i> , in terms of the <i>Employer</i> functions.	Within 1 week after the issue of the task order.	At kick-off meeting with <i>Employer's</i> Org structure.
Notification, venue, agenda and support documentation	X		The <i>Service Manager</i> develops and notifies the agenda, venue and required support documentation for the meeting.	Within 2 weeks after the issue of the task order.	An <i>Employer</i> representation from - design engineering, project planning, OHS safety, radiation protection and Quality will be present at the meeting; plus other as required.
Execution and Minutes	X		The <i>Service Manager</i> assumes chairmanship of the meeting, records and distributes the minutes of meeting.	Within 5 days of the meeting	
Conclusion	X	X	This activity is complete upon acceptance of the minutes of the kick-off meeting by both Parties.	In accordance with the Accepted Plan	Deliverable: Minutes of the kick-off meeting.

4.3.2 Risk reduction meetings

Interval:	Location:	Attendance by:
Adhoc	KNPS	<i>Service Manager, Employer, Contractor and Others as required</i>
At the risk reduction meetings items as prescribed in the TSC are discussed. The Risk Register is updated, by the <i>Service Manager</i> , and distributed within five days of the meeting.		

4.3.3 Operational meetings

Interval:	Location:	Attendance by:
During contract period	KNPS or Tele/Video Conference	<i>Service Manager and Contractor,</i>
<ul style="list-style-type: none"> An operational meeting is held, by tele- or video conference, if necessary, between the <i>Service Manager</i> and the <i>Contractor's</i> project manager to monitor and control the design, manufacturing and planning processes. Typical topics for discussion at this meeting will include <i>Contractor's</i> reporting on the following: Review of Progress (Plan) 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. Minutes of this meeting are written by the inviting Party. These minutes are issued, within 2 days of the meeting, to the other Party for acceptance. No matters mentioned in this meeting are considered as formal contractual communication and each matter is communicated separately. For all decisions made during the meeting, the <i>Service Manager</i> is to issue instructions, unless it is a <i>Contractor</i> action for which no instruction is required, accordingly, not later than 2 days after issuance of the minutes. The <i>Contractor</i> is to await these instructions before proceeding with any decisions made during the meeting. 		

4.3.4 Implementation meeting for specific progress and feedback

Interval:	Location:	Attendance by:
Daily during implementation	KNPS	<i>Contractor and Service Manager</i>
The implementation meeting is held between the <i>Contractor</i> and <i>Service Manager's</i> implementation support team, to report on implementation progress and review any risks, issues and <i>Employer</i> actions that need to be resolved in order to ensure smooth implementation of the <i>service</i> .		

4.3.5 QC Meetings during implementation

Interval:	Location:	Attendance by:
Daily during implementation	KNPS	<i>Contractor QC representative and Employer QC representatives</i>
<p>The <i>Contractor's</i> QC representatives provide reports from each meeting to the <i>Employer's</i> project QC Group. This report will cover:</p> <p>Scheduled QC inspections for the period identified in the meeting.</p> <p>Any new QC related issues identified since the last report, its status and action plan for resolution.</p>		

Status and progress on previously reported quality issues.

4.3.6 Meetings of a specialist nature

Interval:	Location:	Attendance by:
Adhoc	Any	<i>Employer's personnel, the Service Manager, the Contractor, 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 <i>service</i> .		

4.3.7 "Tabletop" meetings

Interval	Location	Attendance by:
Adhoc	Any	<i>Employer's personnel, the Service Manager, the Contractor, and Others as required</i>
To manage the occupancy of the Working Areas during implementation, the <i>Contractor</i> attends the "Tabletop" meetings with the <i>Employer's</i> representative in order to discuss area workload and to integrate and schedule the <i>Contractor's</i> activities as such as to allow sufficient space for implementation.		

4.3.8 Post implementation meeting for feedback and review

Interval:	Location:	Attendance by:
Post unit implementation	KNPS	<i>Service Manager, Contractor Senior Manager (not the Contractor's project manager), Contractor's Project Manager, Employer's personnel, Others as required</i>
The post implementation meeting is held between the <i>Service Manager, Contractor</i> senior 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.		

Meetings of a specialist nature may be convened as specified elsewhere in this Service Information or if not so specified by persons and at times and locations to suit the Parties, the nature, and the progress of the service. Records of these meetings are to be submitted to the Service Manager by the person convening the meeting within five days of the meeting.

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

4.4 Contractor's Management, Supervision, and Key People

4.4.1 People restrictions on the Affected Property; hours of work, conduct and records

4.4.1.1 People

The *Employer's* standard for management and control of supplemental workers at KNPS is documented in KSA-119.

The *Contractor* employs in and about the Provision of the Service 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 *service*, forthwith, any person employed by the *Contractor* in or about the provision of the *service* who, in the opinion of the *Service Manager*, misconduct's himself or is incompetent or negligent in the proper performance of his duties and such person is not again employed for the *service* without the written permission of the *Service Manager*.

The *Contractor*, in and about the provision of the *service*, provides evidence of skills assessment (including qualifications) for its entire staff. *Contractor* project manager, QC and supervisors are required to present SAQA approved certificates (or equivalent), for the position that they fulfil. The *Contractor's* project manager is trained on the NEC TSC3 prior the access date stated on the Task Order. Any personnel that do not meet the panel requirements will have their access to the Affected Property revoked.

All engineering work is performed by suitably qualified and experienced individuals. The design engineer as well as the independent reviewer(s) be registered as professional engineers with the Engineering Council of South Africa (ECSA) (or equivalent international body).

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

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

All radiation workers comply with such radiation protection standards as is required by the *Employer*.

4.4.1.2 Key personnel

The *Contractor* ensures that all key personnel requiring access to the Affected Property 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.

During any on Affected Property construction stages, the *Contractor* ensures continuous on-site supervision of the *service* by its supervisors.

The *Contractor* provides orientation and technical training for all key personnel requiring access to Affected Property 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 (as applicable) and regulations which may be in force at the Affected Property from time to time, which is available on request.

The following are considered key persons by the *Employer* and the *Contractor* submits a brief CV with associated records of qualification and related experience at the Contract Date:

- *Contractor's* project manager
- *Contractor's* planner
- Design engineer
- Site Manager/Service Manager
- Radiation Protection representative
- Quality assurance representative
- Health and safety representative
- Human performance officer

4.4.1.3 Emergency mustering, accountability, and evacuation

Due to the nature of the Affected Property, the *Contractor* is always required to have full accountability of personnel. It is therefore required that the *Contractor* has and maintains a current status and accountability list of all his personnel on the Affected Property. The accountability list is handed to the *Service Manager* each time a change occurs.

The *Contractor* ensures that his site representative takes full responsibility of this requirement and that he and his personnel are fully conversant with the mustering requirements as detailed in the *Employer's* procedure KAA-611.

4.4.1.4 Affected Property hours

Employer working hours are 24 hours a day, 7 days a week during outage periods.

Normal working hours during non-outage periods are:

Mon-Thu: 07h30 – 16h35

Fri: 07h30 – 13h35

The *Contractor* takes due cognisance of the *Employer's* working hours whilst Providing the Service and performs regular reporting of person hours worked on a monthly basis to the *Service Manager*.

4.4.1.5 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 SubContractor's make any public statements or release to any third party any information concerning the performance of any work without first obtaining the written approval of the *Service Manager*, which shall not be unreasonably withheld. Requests to release information are coordinated by the *Service Manager* through the designated *Employer's* Chief Nuclear Officer (CNO). The *Contractor* ensures adherence of its employees, agents and SubContractors to this restriction.

4.4.1.6 Work in the radiological controlled zone

Where applicable, work in the radiological controlled zone, requires the *Contractor's* personnel to attend a three-day Radiation Worker Training course. The course consists of two- and half-day theoretical lectures with an examination, medical examination, blood sample and a whole-body count. The *Contractor's* personnel can only enter the radiological controlled areas after successfully passing the above tests. All work in the controlled zone is governed by a Radiation Protection Certificate (RPC). All *Contractor* personnel comply with these instructions.

4.4.1.7 Permit to work (PTW)

All work performed on the Affected Property is governed by the PTW system and no work is allowed without this Authorisation. As applicable, subject to the direction from the Radiation Protection Officer.

4.4.1.8 Liaison with and acceptance from statutory authorities

Each Party is responsible for all dealings with government and local authorities relating to its' role in terms of the contract and obtains and maintain at its' own expense such permits, licenses and authorizations as may be required in this regard.

The *Contractor* provides support and does all rework necessary on or in connection with the design package until the *Employer* has obtained approval from the NNR for the design change packages.

4.5 Provision of bonds and guarantees

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

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

4.6 Documentation control

The *Contractor* shall be responsible for the development of all supporting documentation for the storage, transportation, and disposal or reprocessing of the radioactive waste. The documentation includes, but not limited to, the Solid Radioactive Waste Disposal Plan (SRWDP), safety case/s, the transportation of the radioactive waste from KNPS to the authorised facility and documentation/permits from applicable Road's authorities.

All the documents generated by the *Contractor* and accepted by the *Employer* shall be retained as a permanent record for the operational life of KNPS by the Technical Documentation and Records Management (TD&RM).

Each document deliverable is to be provided in hardcopy and includes all required signatures obtained.

Each document deliverable is also to be provided as a searchable electronic PDF format and includes all required signatures obtained. Electronic signatures are generally acceptable in accordance with the *Contractor's* Quality Management System.

Each document deliverable is provided as an editable Microsoft file which corresponds to all final documentation issued to the *Employer*.

All documentation, including drawings, operating and instruction manuals, are uniquely identified and cross-referenced with all related documents.

All documents provided by the *Contractor* as part of this project will become the sole property of the *Employer*. No information or documentation can be shared or disclosed to a third party without prior consent from the *Employer*.

4.6.1 Documentation to be provided by the Employer

Eskom, on request from the *Contractor*, provides copies of all applicable Eskom Standards, Procedures, Guides, Work instructions and Forms as well as available technical details of the radioactive waste, as applicable.

The *Service Manager* only authorises the relevant personnel once the *Contractor* has signed a confidentiality agreement.

4.6.2 Communication

All communication is addressed to the *Service Manager*, as applicable per the TSC conditions. All communication makes reference to:

- the contract number that is issued by the *Employer* (normally a 46000xxxxxx number),
- the title of the contract,
- any previous references relating to the specific communiqué (i.e., a response to a *Service Manager's* communication),
- the specific TSC clause under which the communication is issued,
- whether a reply is required; and
- a unique letter reference number.

The unique reference number to be used for written correspondence between the *Service Manager* and *Contractor* and vice versa is as follows:

- From the *Service Manager* to the *Contractor*: 46000..... E/C 0xxx
- From the *Contractor* to the *Service Manager*: 46000..... C/E 0xxx

and xxx referring to the next sequential letter number.

All document deliverables transmitted to the *Service Manager* for review / acceptance / record / information are transmitted under formal communication with an associated document transmittal cover document. Related CDs, data-cards or hardcopy documents are delivered with a hardcopy copy of the formal communication and/or document transmittal to the *Employer's* nominated information controller – situated on Affected Property.

The title of each letter clearly summarises the purpose of the letter. Each notification deals with only one specific issue at a time.

In the case where letters are submitted electronically by means of email, the title of the letter is reflected in the subject line and only one letter is submitted per email.

4.7 Invoicing and payment

4.7.1 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 *Service Manager* making his own assessment, based on available information.

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

4.7.2 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 Price List
- 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 Order the *Service Manager* and the *Contractor* must sign next to each line acceptance of the *service*, equipment, materials, or goods delivered on the applicable SAP generated Order. The signed copy of this SAP generated Order is promptly returned to the *Service Manager*.

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

4.7.3 Compensation events

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

- Introduction
- Executive summary
- Contractual basis of compensation event
- Details of the compensation event
- Assessment of compensation event
- Conclusion
- Accepted Plan showing impact of delay
- Appendices:
- Early Warning
- Notification
- Instruction to submit quotation
- Instruction to submit alternative quotation or to submit a revised quotation
- Any extension of time under
- Any other document(s) the *Contractor* may consider applicable.

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".

4.8 Contract change management

The *Contractor* is responsible to document and resolve any required changes on his design/Equipment. The acceptance process indicated in the Service Information is adhered to, by the *Contractor*.

The *Contractor* adheres to the contract change management procedure for any changes to the scope of the *services*. The details of the contract change management procedure are agreed between the *Service Manager* and the *Contractor* at the project kick-off meeting.

4.9 Records of Defined Cost to be kept by the Contractor

The *Contractor* keeps detailed records, for presentation to and inspection/audit by the *Service Manager*, for the quotations of the compensation events that have happened.

4.10 Insurance provided by the Employer

The *Employer* provides the insurances as stated in the Contract Data.

4.11 Training workshops and technology transfer

Nil

4.12 Design and supply of Equipment

The *Contractor* performs the design, engineering and supply required for all equipment necessary to perform the *services* as per the URS. The *Service Manager* shall review for acceptance any radiological characterization software/code used by the *Contractor*.

4.13 Things provided at the end of the service period for the Employer's use

The *Contractor* to submit as part of the contract deliverables all procedures, manuals, quality documentation and licenses, for acceptance by the *Service Manager*.

4.14 Equipment

Not applicable

4.15 Information and other things

The *Contractor* is to issue to the *Service Manager* within 30 days of the delivery to the authorised facility, the final acceptance of the waste at the authorised facility or equivalent certificate.

4.16 Management of work done by Task Order

Nil

5 Health and Safety, the Environment and Quality Assurance

5.1 Health and safety risk management

The *Contractor* shall comply with the health and safety requirements contained in Annexure 2 to this Service Information.

5.2 Environmental constraints and management

The *Contractor* shall comply with all applicable Environmental laws and regulations as stipulated in the National Environmental Management Act (NEMA), 1998 (Act No 107 of 1998). The attention of the service provider is drawn to Section 28 (1) of NEMA which imposes a duty of care to the environment and to ensure that remedial action is instituted to minimise environmental damage and mitigate environmental impacts.

Radioactive waste or waste contaminated by radioactive nuclides must be transported from Koeberg in accordance with regulations for the safe transportation of radioactive material as approved by the National Nuclear Regulator.

Also, the service provider or *Contractor* shall comply with the legal requirements for hazardous waste handling and transportation. The *Contractor* must take extra precaution to avoid damaging any fauna and flora with vehicles when traveling between the Affected Property and to the R27 road, as required by the National Environmental Management: Biodiversity Act (NEMBA), 2004 (Act 10 of 2004) and National Environmental Management: Protected Areas Act (NEM: PAA), 2003 (Act 59 of 2003).

An Environmental Assessment must be conducted to identify the potential environmental impacts, and the controls to be implemented to manage the environmental impacts. The controls for identified potential environmental impacts must be incorporated in the project controls.

The *Contractor* must provide a Hazardous Materials Emergency Response Plan designed to minimize damage to the environment from any unplanned release of hazardous materials in the event of a road accident. This plan must outline the emergency procedures that shall be followed by personnel in an event where hazardous materials are released to the environment.

5.3 Quality assurance requirements

The classification of the service is Q1/L2.

The Contractor complies with the general quality requirements of 238-102 Revision 2.

The Contractor's Quality Management System must be certified to ISO9001:2015 or equivalent, and comply with the requirements of ASME NQA-1 or equivalent quality standard.

The Contractor's quality management system is 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 Service Manager reserves the right to at any time audit and/or monitor the control between the Contractor and Subcontractors, as well as the performance of the Contractor's Subcontractors. Such audits are done by prior notification and in liaison with the Contractor.

The duly authorised representative of the Employer and Employer's Appointed Inspection Authority (AIA) are offered access to the Contractor and its Subcontractors generated documentation at reasonable times to monitor compliance with QA requirements.

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

Contractor's authorisation of personnel (including Subcontractor personnel), applied for providing the services, is made available to the Service Manager on request.

5.3.1 Quality control requirements

The *Contractor's* and SubContractor's quality control programmes are subject to the acceptance by the *Employer*.

The *Contractor* ensures that all specifications and requirements are communicated to the relevant parties in his organisation and does not deviate from it.

All *Contractor's* Quality Control Plans (QCPs) are accepted by the *Service Manager*, the *Contractor* and the *Employer's* Appointed Inspection Authority/QA representative (as applicable) prior to the commencement of work. Only after acceptance of these documents by the *Service Manager* and the *Employer's* QA representative as applicable, may the work proceed.

The *Contractor* ensures that all work (*Contractor* and SubContractor work) is carried out in accordance with the QCPs or any other specifications through written instructions from the *Service Manager*.

All documentation is subject to configuration control and has a clearly stated revision number and previous similar documentation is revoked.

All quality related problems/issues are reported and resolved as Defects.

All completed work is signed off in the QCPs as the work progress and all the relevant signatures are made on the documentation.

The *Contractor* and his SubContractor employ quality control representatives, with appropriate proven experience.

5.3.2 Contractor's Quality Control Plans (QCPs)

The QCP typically consist of the following as a minimum:

A cover page that includes and makes provision for the following:

- Document unique number
- Revision number
- Page number
- Provision to incorporate all inspection report numbers
- Plant/system worked on
- High level description of work execution
- Provision for review and acceptance signatures by the *Contractor*, the *Employer* and the *Employer's* AIA/QA representative (where applicable).
- Provision for final release signatures by the *Contractor*, the *Employer* and the *Employer's* AIA/ QA representative (where applicable).
- A page which includes a high-level logical sequence of work execution
- Adequate line space for stamps, dates, and signatures

A page which includes:

- Drawing numbers
- Abbreviations
- Records numbers
- Procedures numbers
- Reference document numbers
- Certificate numbers and references
- The work execution logic and sequence.
- Hold and witness points

A Materials summary that includes:

- Material quantities and dimensions
- Material certificate numbers or receipt inspection reference numbers with adequate traceability to material/other certificates.
- A thickness test report where thickness tests are carried out on components. The thickness test results are recorded, and the positions of the measurements are traceable to the specific area of testing against the records.

6 Procurement

6.1 People

Minimum requirements of people employed, include:

6.1.1 The Contractor:

Handles applicable formal written communication as per section 2.6.2 between the *Contractor* and the *Employer* through the *Service Manager*, as applicable to the TSC. All communication references the contract number and the title of the contract issued by the *Employer*. A project specific correspondence reference numbering system is agreed between the *Service Manager* and the *Contractor* at the project kick-off meeting.

Conducts informal day-to-day verbal communications with others as necessary for the purpose of providing the *service*.

Maintains an up-to-date record of the receipt and submission of all communication related to providing the *service*.

6.1.2 Co-operation with others and standard of the service:

All *services* are subject to, at any given time, inspections by various *Employer* groups, i.e. Safety Risk Management, Fire Risk Management, Engineering, Licensing, and Quality Assurance/Quality Control.

6.1.3 In providing the services:

The *Contractor* shares the Affected Property with Others and maintains a harmonious relationship at all times with and co-operates with the *Employer* and Others and their employees who may be working in the same area or on the same system; The *Service Manager* shall ensure and provide proof to the *Contractor* that appropriate NDAs have been signed between the *Employer* and the Others.

- The *Service Manager* takes the lead to interface the *services* with the activities of the *Employer* and Others. The *Contractor* is expected to attend any interface meetings, as may be required.
- The *Contractor* makes available the assignees and key people timeously for providing the *services*.
- The *Contractor* and *Employer* shall make their best efforts to identify those matters that fall fully or partially within the scope of the *service*. The *Contractor* brings to the attention of the *Employer* any additional *service* that the *Contractor* believes should be performed by him in keeping with sound professional practice. Any additional work, not due to the fault of the *Contractor*, resulting from this interface shall be treated as compensation event.
- The *Contractor* notifies the *Employer* of any matter that the *Contractor* disagrees with or cannot resolve to his satisfaction.
- The *Contractor* co-operates at any time with others (e.g. an independent person) appointed by the *Employer* to review work done by the *Contractor* in providing the *service* provided that proper NDAs have been put in place and provided that the *Service Manager* has provided proof to the *Contractor* that these NDAs are in place; and
- The *Contractor* co-operates and provides information as required by the *Employer* once the *Service Manager* has issued a formal request/instruction for issues affecting the *service*, but outside the scope of the *service*.
- Co-operates at any time with Others, appointed by the *Employer* for the provision of the *service*.

6.1.4 Special equipment for irradiated areas (as applicable)

Any special equipment for the Service in radiological areas is furnished by the *Contractor*. Any clean Equipment furnished by the *Contractor* which cannot be recovered (whether decontaminated or not), is for the *Employer's* own account unless due to the negligence of the *Contractor*. The cost to the *Employer* is the cost less depreciation. The *Employer* must ensure that all arrangements for decontamination or disposal be taken care of in the event any Equipment cannot be decontaminated as per regulations.

6.1.5 Tools, test equipment & consumables

The *Contractor* must comply with responsibilities as stated in the URS reference DSG-310-365.

6.1.6 Control of radioactive Equipment or Material (as applicable)

Prior to radioactive equipment or materials that are to be used on the *Employer's* Affected Property the *Contractor* must:

- obtain the *Service Manager's* acceptance of a Radiological Surveillance Report, provided by the *Contractor*, which details the radiological conditions/cleanliness of the equipment or materials in terms of dose rate and contamination level (fixed/loose); and
- make available such equipment or materials for scrutiny by the *Employer's* RP Group, when first unpacked/unfolded/uncontained from its original shipment packing.

6.1.7 Publicity and progress photographs

Written acceptance from the *Service Manager* is required prior to any publication on notice boards, advertising, media relations, photography and progress photographs.

6.1.8 Contractor's Equipment

All equipment and tools must be listed and specified before they are brought on Affected Property. This list will serve as evidence for removal permits upon the end of the *service* period and equipment to follow the *Employers* Calibration Laboratory process.

6.1.9 Equipment provided by the Employer

For the purpose of expediting the *service*, the *Employer* will not be providing any equipment except special equipment for radiation areas (as applicable).

6.1.10 BBEE and preferencing scheme

Nil.

6.2 Subcontracting

All SubContractors are contracted under appropriate NEC conditions of contract. Where this requirement is not met, the proposed conditions for Compensation Events/Variation Orders/Amendments of contract are submitted to the *Service Manager* for acceptance, except if the *Contractor* utilises NEC, Standard *Contractor's* conditions of contract or if the relationships are documented in some form of Service Level Agreement, Long-Term Partnering Agreements etc.

6.2.1 Preferred Subcontractors

Preference is given to South African companies as possible *SubContractor*. Where possible, local resources are utilised. A predetermined and mutually agreed value of this contract, at the Contract Date, is attributable to Eskom Holdings Limited 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 *Service Manager* by means of a 3-monthly statement of expenditure.

6.2.2 Subcontract documentation, and assessment of subcontract tenders

The *Contractor* provides evidence of the selection process and criteria for each SubContractor appointed to assist the *Service Manager* in his contractual acceptance of the SubContractor. The evidence includes skills assessment (including qualifications) for SubContractor's staff. In the *Contractor's* submission to the *Service Manager*, the *Contractor* also includes a "control and supervision of sub-*Contractor*" plan for acceptance, by the *Service Manager*.

6.2.3 Limitations on subcontracting

SubContractors reporting relationships are such that quality outputs and independence is assured e.g. A radiography SubContractor cannot report to the welding SubContractors. These relationships are such that the *Contractor* has full control of all SubContractor outputs. SubContractors contracting to SubContractors are to be avoided as far as possible. Exceptions are only allowed with the explicit acceptance of the *Service Manager*.

6.2.4 Nuclear safety

The *Contractor* establishes and maintains vigorous oversight over its SubContractors to assure adherence to this Services Information and its requirements and thereby achieve nuclear safety. Note: The *Contractor* is entirely responsible for all the work delegated to its SubContractors.

6.3 Equipment, Plant and Materials

6.3.1 Specifications

The *Employers* specification is the URS DSG-310-365. The *Contractor*, as part of the design, submits the Certified Design Specification for equipment and materials, for acceptance to the *Service Manager*.

6.3.2 Correction of defects

Should the need to repair a defect arise, the *Contractor* adheres to the *Employer's* specific requirements applicable for work performed at the Affected Property.

Until the end of liability date, the *Service Manager* promptly notifies the *Contractor* of each Defect as soon as he finds it, and the *Contractor* promptly notifies the *Service Manager* of each Defect as soon as he finds it. The *Contractor* corrects a Defect whether or not the *Service Manager* notifies him of it.

6.3.3 Contractor's procurement of Equipment and Materials

As the technical specialist, the *Contractor* prepares acceptance criteria and submits these to the *Service Manager* for acceptance.

The *Contractor's* procurement of equipment and material is subject to these acceptance criteria. Any additional criteria requirements requested by the *Service Manager*, following this acceptance, shall be considered as compensation events.

6.3.4 Tests and inspections before delivery

The test and inspection plans are submitted to the *Services Manager* for acceptance. Test and inspections need to form part of the quality control plans and the accepted plan.

6.3.5 Equipment & Materials provided "free issue" by the Employer

The *Employer* will not be providing equipment & materials as "free issue".

6.3.6 Cataloguing requirements by the Contractor

Nil

7 Working on the Affected Property

7.1 Employer's site entry and security control, permits, and site regulations

7.1.1 Fitness for duty (FFD) 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. Access 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 perform their duties safely and competently. 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 the Affected Property.
- 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.

7.1.2 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 Affected Property:

Activity Description	Service Manager / 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	<ul style="list-style-type: none"> • The following identification documents are the only documents that shall be accepted as proof of identification. • South African (SA) 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>	<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.

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
			employee is allowed to register 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 the Affected Property 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 the Affected Property. Employer 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 when he/she is registered on the FFD system. Persons not in possession of the qualifications required by the Employer 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

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
					<ul style="list-style-type: none"> • The criminal history of an applicant shall be assessed before access to the Affected Property 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 Employer's Security section. South African applicants are required to give their consent to the Employer 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 Affected Property 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 the

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
					Affected Property to start the FFD process.
Complete Man Job Spec Form	X	X	Contractor to complete with Service Manager	Contractor's 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>Service Manager</i>, for each of his employees and all signatures are obtained before the health assessment is arranged. These forms are obtainable from the Employer 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 the Affected Property to start the FFD process.
Drug Test		X	Negative drug test to be presented before registration takes place	Contractor's 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 the Affected Property to start the FFD process. Persons with a positive drug test result are not considered for

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
					<p>employment by the <i>Contractor</i>.</p> <ul style="list-style-type: none"> 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 the Affected Property 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 the Affected Property to start the FFD process. The occupational health services job specification form is required by the occupational health practitioner for the health assessment. 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 assessments are only performed by Employer registered Occupational Health Practitioners. The health assessment report is not older than 3 months when the <i>Contractor's</i> employee

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
					<p>is enrolled on the FFD system.</p> <ul style="list-style-type: none"> Persons that are not declared fit to perform the work specified in the occupational health services job specification form are not to 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 the Affected Property 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 to 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 the Affected Property 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 Employer's FFD system by a person appointed by the Employer. This

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
					<p>could be a <i>Contractor's</i> employee, if appointed by the Employer. The <i>Service Manager</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</p> <ul style="list-style-type: none"> 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>Service Manager</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 Employer 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 Affected Property. The <i>Service Manager</i> identifies any specific training needs of each individual or group of individuals (based on

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
					<p>the planned work scope) and ensures compliance to the training requirements identified for the specific duties before access to the Affected Property is considered.</p> <ul style="list-style-type: none"> The <i>Contractor's</i> employee must be in possession of the training requirements form when he/she arrives on the Affected Property to start the FFD process.
FFD Bookings	X	X		<i>Contractor's</i> own planning	<ul style="list-style-type: none"> <i>Contractor's</i> employees are booked on the Employer's FFD system by a person appointed by the Employer. This could be a <i>Contractor's</i> employee, if appointed by the Employer.
Asbestos Training		X	Training that the <i>Contractor's</i> employee must complete (only if required)	<i>Contractor's</i> own planning	Only if required
Confined Space Training		X	Training that the <i>Contractor's</i> employee must complete (only if required)	<i>Contractor's</i> own planning	Only if required
Basic Rigging Training		X	Training that the <i>Contractor's</i> employee must complete (only if required)	<i>Contractor's</i> own planning	Only if required. The <i>Contractor</i> verifies the validity of prior learning
Non-Disclosure Agreement		X	All <i>Contractor</i> employees are	<i>Contractor's</i> own planning	<ul style="list-style-type: none"> The <i>Contractor</i> ensures that a non-disclosure

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
			required to sign a non-disclosure agreement		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	Service Manager and Contractor to supply	Contractor's own planning	<ul style="list-style-type: none"> The <i>Contractor</i> 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 <i>Contractor</i> in conjunction with the <i>Service Manager</i>. The form identifies the security areas that the <i>Contractor's</i> employee is required to enter for the execution of the tasks. The <i>Contractor's</i> employees must be in possession of the security permit application when he/she arrives on the Affected Property to start the FFD process.

7.1.3 Fraudulent Documents

The *Contractor's* employees that have presented fraudulent documentation are permanently denied access to the Affected Property.

7.1.4 False Declarations

The *Contractor's* employees that have made false declarations are permanently denied access to the Affected Property.

7.1.5 FFD requirements after registration takes place

Activities to be performed after the *Contractor's* arrival at the Affected Property:

Activity Description	Service Manager / 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 the Affected Property.	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 Affected Property 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 <i>Affected Property</i> are required to give consent to the <i>Employer</i> to verify their criminal background. This activity is performed on the Affected Property by the <i>Employer's</i> Security staff for South African citizens by the taking of a set of fingerprints 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 Affected Property
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	30 min	The duration of this activity is approximately 30 minutes

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
			performed off the Affected Property will be verified to ensure that all requirements have been met.		
Induction Training including: SAT PAT FME (Generic) Human Performance	X	X	<p>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.</p> <p>Plant Access Training (PAT) <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.</p> <p>Foreign Material Exclusion Training (FME) <i>Contractor</i> employees coming to the Affected Property that require access to FME zones or will perform any hands-on work on the plant are required to complete this training.</p> <p>Human Performance Training (HPT) <i>Contractor</i> employees that are required to work inside the protected area of KNPS shall complete the Human</p>	8 hours	<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 Affected Property. Plant Access Training (PAT) <i>Contractor</i> employees that do not successfully complete the PAT course are not allowed access to the Affected Property. <i>Contractor</i> employees required to perform work in the intake basin are required to pass the PAT Foreign Material Exclusion Training (FME) <i>Contractor</i> employees that do not successfully complete the FME course are not allowed access to

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
			Performance Training (HPT) before work may commence.		<p>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</p> <ul style="list-style-type: none"> • Human Performance Training (HPT) • <i>Contractor</i> employees that do not successfully complete the HPT course are not allowed access to the Affected Property. • <i>Contractor</i> employees required to perform work in the intake basin are required to pass the HPT course.
Induction to Working at Heights / Material Handling	X	X	<i>Contractor</i> employees are required to successfully complete the required Working at Heights/Material Handling training before working at heights or handling material is considered.	8 hours	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	<i>Contractor</i> employees are required to successfully complete the required radiation worker training before access to radiation zones is considered.	3 days	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	<i>Contractor</i> employees are required to	2 hours	Only if required

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
			successfully complete the required confined space training before access to confined space is considered.		Failure to successfully complete the confined space training will result in access to confined space being restricted
Induction to Asbestos Training	X	X	<i>Contractor</i> employees are required to successfully complete the required Asbestos training before access to Asbestos zones is considered.	1 hour	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	<i>Contractor</i> employees are required to successfully complete the required Rigging training before rigging work is considered.	8 hours	Only if required Failure to successfully complete the Rigging training will result in rigging work being prohibited
<i>Service Manager</i> Training	X	X	<i>Contractor</i> employees are required to work as <i>Service Managers</i> must successfully complete the required <i>Service Manager</i> training before work is considered.	2.5 days	Only if required Failure to successfully complete the <i>Service Manager</i> training will result individual being prohibited to do supervision
Technical assessment Mechanical Machining MC&I Electrical Welding Pipe Fitting Civil TA 4 I&T MSS	X	X	<i>Contractor</i> 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	Only if required <ul style="list-style-type: none"> The <i>Service Manager</i> is responsible to indicate the services that the <i>Contractor's</i> employee will be performing on the Affected Property. <i>Contractor</i> employees that do not successfully complete the technical assessment shall not be allowed to perform work on the Affected Property. The duration of this activity depends on the type of work

Activity Description	Service Manager / Employer	Contractor	Requirements	Planning	Additional Notes
					discipline and scope and is between 4 hours and two days.
Final acceptance and Issuing permit	X	X	All required FFD requirements are completed successfully before final acceptance is processed and a security permit is issued by the Security Group.	30min	

7.1.6 Exit procedure

The *Contractor* and the *Service Manager* ensure that permit holders that no longer require access to the Affected Property 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.

7.1.7 Security check points

Prior to access to Affected Property, the *Contractor* passes through various security check points, via entrance at the R27 access gate, entrance at the Duynefontein entrance and at Access Control Point 1 (ACP-1). All temporary worker/visitors' permits are issued at ACP-1.

7.1.8 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 refueling 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 Service Information.

7.1.9 Prohibited/unauthorised items on the Affected Property

In terms of the National Key Point Act 102 of 1980, KNPS 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 KNPS). The procedure stipulates that the following items are prohibited from being brought onto the Affected Property, 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 the Affected Property.

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 Access Training Course (PAT). It is the responsibility of each of the *Contractor's* employees to ensure compliance and to refrain from bringing prohibited/unauthorised items onto the Affected Property.

7.1.10 Vehicles and tools/equipment

All equipment and tools are subject to a security screening before they are allowed on the Affected Property. All equipment and tools must be listed and specified before they are brought on Affected Property. This list will serve as evidence for removal permits upon the end of the Service Period. Vehicles are only allowed on Affected Property if justification is provided to the *Service Manager* that such a vehicle is essential to provide the *service*.

7.2 People restrictions, hours of work, conduct and records

7.2.1 People

As per clause 2.4

7.2.2 Health and safety facilities on the Affected Property

The *Employer* maintains a first aid and clinic facility which is available for treating minor medical problems. *Contractors* are permitted to make use of this facility at their own expense provided that they appear during prescribed consulting hours and are duly authorised by the *Contractor* supervisor. Emergency treatment is provided as needed. Casualty facilities are available at hospitals within a 25km radius.

7.3 Cooperating with and obtaining acceptance of Others

The *Service Manager* co-ordinates the work of Others on Affected Property. The *Contractor* co-operates with and does not delay, impede or otherwise impair the work of others.

7.4 Records of Contractor's Equipment

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

7.5 Equipment provided by the Employer

The *Employer* does not provide any Equipment for the *service*.

7.6 Site services and facilities

7.6.1 Provided by the Employer

7.6.1.1 Electric power supplies

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

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
Electrical supply point	X		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: 220V AC rated at 15 A at various positions on Affected Property, 380V AC three phases rated at 32 A without neutral at various positions on the Affected Property, 6.6 KV AC three phase at various positions on the Affected Property.	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.

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
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 Affected Property 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>Service Manager</i> reserves the right to stop the <i>Contractor's</i> use of any electrical equipment or appliance that in the <i>Service Manager's</i> opinion does not conform to the foregoing.

7.6.1.2 Lighting

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
Temporary local lighting		X	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 <i>serviceability</i> or the availability of these installations.

7.6.1.3 Water

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
Water supply point	X		Potable water is supplied at standard tapping points.	As required	The <i>Employer</i> takes no responsibility for disruptions in the supply of water.
Water supply hoses, connectors, piping and temporary plumbing ad pumps.		X	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	

7.6.1.4 Sanitary facilities

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
Sanitary facilities	X		The <i>Contractor</i> is allowed access to and use of the <i>Employer's</i> existing sanitary facilities. 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	

7.6.1.5 Office accommodation and/or yard

The *Contractor* is held liable for any damage to the *Contractor's* facility during the period of occupation. It is imperative that the *Contractor's* facilities checklist be verified prior to occupation and upon departure, as this remains proof of any damage to the facility, which needs to be repaired by the *Contractor*. All expenses incurred by the *Employer* in the event of having to perform repairs are at a fee that is in line with the current building tariffs and be charged for the *Contractor's* account.

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
Indication of site office requirements for various stages of the project including the office <i>services</i> required.		X	Request to be for <i>services</i> 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-week duration	The <i>Contractor</i> will be allocated an area on a concrete slab within the security area for establishment of his site office facility.
Supply of connection points for phone,	X		Co-ordination and scheduling by <i>Contractor</i> .	As required	

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
fax, network and electrical supply.					
Supply of containers / Office space		X	<i>Contractor</i> to co-ordinate.	2 months' notice	This is for temporary container laydown area which the <i>Service Manager</i> will designate. The <i>Contractor</i> to furnish his specifications.

7.6.1.6 Garbage collection

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
Garbage collection	X		<ul style="list-style-type: none"> A central garbage collection point is provided on the Affected Property and is pointed out by the <i>Service Manager</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 Affected Property to the central garbage collection point. 	Not applicable	

7.6.1.7 Compressed air supply

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
Compressed air supply point	X		<ul style="list-style-type: none"> Compressed air is supplied at 6 to 8 bar (g) at standard air supply points on the plant. All air points at the Affected Property are equipped with staubli quick connecting valves. The <i>Contractor</i> provides and maintains all connections and fittings (male staubli connector to be fitted to <i>Contractor's</i> equipment by the <i>Contractor</i>). 	N/A	The <i>Employer</i> takes no responsibility for disruptions in the supply of compressed air.
Air supply hoses and connectors		X	All air hoses and connections shall be in good working order and comply with the requirements of the OH&S Act.	As required	

7.6.1.8 House keeping

The *Contractor* is responsible for any damage to buildings, floors and plant incurred during the Provision of the Service. The worksites 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.

7.6.1.9 Personal computers

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

7.6.1.10 Canteen and snack bar

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
Canteen, snack bar and vending supplies	X		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	

7.6.1.11 Telephones

Activity description	Service Manager	Contractor	Requirements	Planning	Additional notes
Telephone and Fax account payments and LAN account payments		X	<i>Contractor</i> to provide his own communication tools and equipment	As required	

7.6.1.12 Environment

The *Contractor* ensures that all equipment 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.

7.6.2 Provided by the Contractor

The *Contractor* provides all remaining facilities to provide the *service*. Facilities provided by the *Contractor* are removed prior to completion.

7.6.2.1 Existing premises, inspection of adjoining properties and checking work of others

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

- Barricades between the work area and the remainder of the plant (if used) are kept in place and shall always be respected by the *Contractors'* staff.
- All existing *services* in the area of the *services* will be operational during the period of the contract and at no time will the *Contractor* be permitted to move or disturb these *services*. It is a requirement of the Contract that the *Contractor* perform the *services* 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 *services*.
- The *Contractor* ensures that all *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*.

7.6.2.2 Survey control and setting out of the services

The *Contractor* is to submit the detail surrounding survey control and the setting out of the *services* for within all submission of all work plans for the respective interventions, i.e. walk downs.

7.6.2.3 Underground services, other existing services, cable and pipe trenches and covers

The *Contractor* complies with the requirements provided in the URS DSG-310-365 where applicable.

7.6.2.4 Sequences of construction or implementation

The execution sequence of activities will be based on the *Contractor's* programme as submitted for acceptance by the *Service Manager*.

7.6.2.5 Giving notice of work to be covered up

The *Contractor* gives 24-hour notice, prior to work for any inspections the *Service Manager* needs to perform on Affected Property. Should the *Contractor* require inspections off the Affected Property, the *Contractor* allows for enough time to enable the *Service Manager* to make travel arrangements, following the *Contractor's* notification.

7.7 Hook ups to existing works

Where hook-ups to existing works are required, the impact and effect of such hook-ups are detailed and for the approval of the *Service Manager*.

7.8 Tests and inspections

7.8.1 Description of tests and inspections

The *Contractor* complies with the requirements provided in the URS DSG-310-365 if applicable.

7.8.2 Materials facilities and samples for tests and inspections

The *Contractor* complies with the requirements provided in the URS DSG-310-365 if applicable.

8 Technical Information

8.1 Images and sketches

The following images and sketches provide some technical information, to support costing, related to the reactor heads and control rod drive mechanism currently in storage in the LLW building.

The images shown in Figures 1 and 2 represent RPVCH in LLW building. In Figure 1, the picture was taken while the panel walls were removed and in Figure 2, the picture was taken with the RPVCH mounted on concrete blocks with extra-high concrete panel walls.



Figure 1: Unit 1 RPVCH at LLW building



Figure 2: Unit 2 RPVCH mounted on concrete blocks at LLW building



Figure 3 and 4: Additional photos of Unit 2 RPVCH in the LLW building



Figure 5 : Unit 2 showing extra height extra-high concrete panel walls, being installed





Figure 7: Unit 2 head entering the Low-Level Waste Building storage

ORPVCH with cover	Unity	Reference
Weight	100 Te	IBSET_F-19-1588
Outer dimensions	D=4674 mm H=4700 mm	
Centre of Gravity horizontal Y, X, Z		

Figure 7: General dimension of the old reactor heads with covers

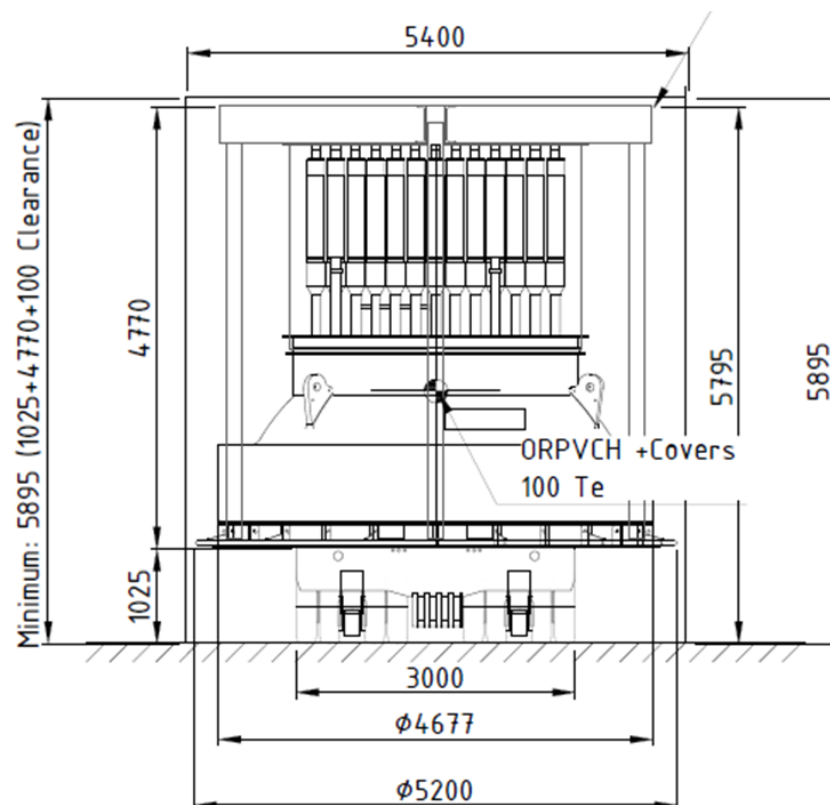


Figure 8: General dimension of the reactor heads

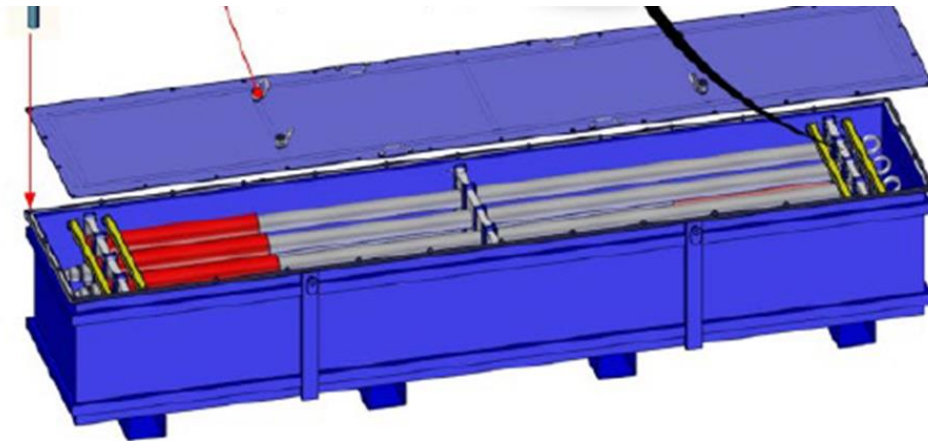


Figure 37: CRDM RTH packed in racks

Figure 9: Control Rod Drive Mechanisms (CRDMs) crates

Note : 53 CRDMs – rod travel housings are cut and packed in 4 different racks – 3050 kg per rack

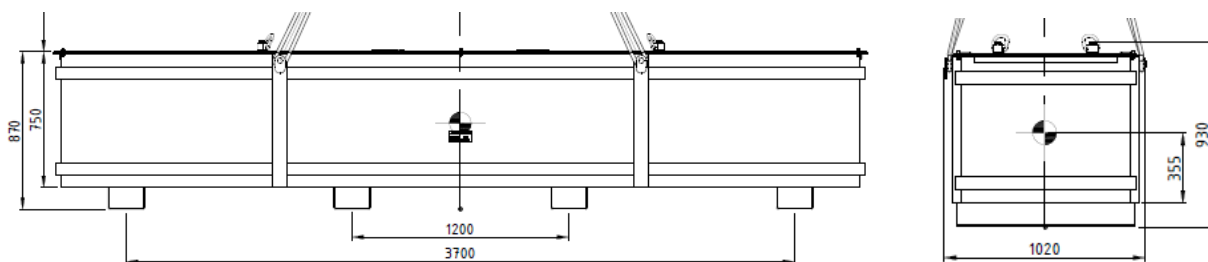


Figure 10: Control Rod Drive Mechanisms (CRDMs) crates rigging/slinging information

9 List of attached documents

Reference number	Document Title	Revision
DSG-310-365	User Requirement Specification (URS) reference	Rev 3
239-QGA-001(T)	Waste Management Guideline	Rev 0
Annexure 1	Price List / Activity & Payment Schedule	

C3.2: Affected Property Information

9.1 Topographical

9.1.1 Location of the Affected Property

The site (Affected Property) is located within ACP-2 at KNPS (KOEBERG) north of Melkbosstrand in the Southwestern 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 30km 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 access road to KOEBERG.

9.1.2 Security check points

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

C3.3: Contractor's Service Information