



NEC3 Professional Services Contract (PSC3)

**Contract between Eskom Holdings SOC Ltd
(Reg No. 2002/015527/30)**

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

for Lethabo Ash Dump Extension

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CONTRACT No. [Insert at award stage]

PART C1: AGREEMENTS & CONTRACT DATA

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	[to be inserted from Returnable Documents at award stage]	
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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:

Lethabo Ash Dump Extension

The tenderer, identified in the Offer signature block, has

<i>either</i>	examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.
<i>or</i>	examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

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 *Consultant* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data.

The offered total of the Prices exclusive of VAT is	R
Value Added Tax @ 14% is	R
The offered total of the Prices inclusive of VAT is	R
(in words)	

If Option E or G apply, for each offered total insert in brackets, "(Not Applicable – Cost reimbursable)"

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 *Consultant* in the *conditions of contract* identified in the Contract Data.

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

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 Consultant 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	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: The Scope

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 and signed original copy of this document, including the Schedule of Deviations (if any).

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Note: If a tenderer wishes to submit alternative tenders, use another copy of this Form of Offer and Acceptance.

Schedule of Deviations

Note:

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

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

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

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

For the tenderer:

For the Employer

Signature

Name

Capacity

On behalf
of

(Insert name and address of organisation)

(Insert name and address of organisation)

Name &
signature
of witness

Date

C1.2 PSC3 Contract Data

Part one - Data provided by the *Employer*

[Instructions to the contract compiler: (delete these two notes in the final draft of a contract)]

1. Please read the relevant clauses in the conditions of contract before you enter data. 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.
2. The PSC3 options are identified by shading in the left hand column. In the event that the option is not required select and delete the whole row.
3. Where the symbol "■" is used data is required to be inserted relevant to the clause and statement which requires it.]

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

Claus e	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
	dispute resolution Option	A: Priced contract with activity schedule
	and secondary Options	W1: Dispute resolution procedure
		X2 Changes in the law
		X5: Sectional Completion
		X7: Delay damages
		X9: Transfer of rights
		X10 <i>Employer's Agent</i>
		X13: Performance bond
		X18: Limitation of liability
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Professional Services Contract (April 2013) ¹	
10.1	The <i>Employer</i> is (Name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa

¹ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009 and www.ecs.co.za

Address

Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg

Tel No.

Fax No.

11.2(9)	The <i>services</i> are	Lethabo Ash Dump Extension
11.2(10)	The following matters will be included in the Risk Register	
11.2(11)	The Scope is in	Part 3: Scope of Work
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	For design review 3 weeks 4 working days for normal communication
13.6	The <i>period for retention</i> is	1 year following Completion or earlier termination.

2 The Parties' main responsibilities

25.2	The <i>Employer</i> provides access to the following persons, places and things	access to	access date	
		1	LIDAR Survey	As Per the accepted program
		2	Geotechnical Investigation	As Per the accepted program
		3	Stability analysis	As Per the accepted program
		4	The assessment on current operations of the ash dump	As Per the accepted program

3 Time

31.2	The <i>starting date</i> is.	TBC		
11.2(3)	The <i>completion date</i> for the whole of the <i>services</i> is.	TBC		
11.2(6)	The <i>key dates</i> and the <i>conditions</i> to be met are:	Condition to be met		key date
		1	Submission of the LIDAR Survey reports	As Per the accepted program
		2	Submission of Geotechnical Investigation reports	As Per the accepted program

		3	Detailed design report	As Per the accepted program
		4	Conveyor Design Report	As Per the accepted program
		5	Construction Drawings	As Per the accepted program
		6	Bill of Quantities for Construction	As Per the accepted program
		7	Construction Technical specification for execution	As Per the accepted program
		8	Updated Operating and Maintenance Manual	
31.1	The <i>Consultant</i> is to submit a first programme for acceptance within		2 weeks after contract award	
32.2	The <i>Consultant</i> submits revised programmes at intervals no longer than		2 weeks	
4	Quality			
40.2	The quality policy statement and quality plan are provided within		2 weeks of the Contract Date.	
42.2	The <i>defects date</i> is		52 weeks after Completion of the whole of the services.	
5	Payment			
50.1	The <i>assessment interval</i> is		between the [●] day of each successive month.	
50.3	The <i>expenses</i> stated by the <i>Employer</i> are		Item	Amount
			Submission of the LIDAR Survey reports	As per the FRI
			Geotechnical Investigation Report submission	As per the FRI
			Stability analysis	As per the FRI

		Approved Detailed design report	As per the FRI
		Approved design and Construction Drawings	As per the FRI
		Approved BOQ for construction	As per the FRI
		Approved construction technical specification	As per the FRI
51.1	The period within which payments are made is	30 days after receipt of TAX invoice	
51.2	The <i>currency of this contract</i> is the	South African Rand	
51.5	The <i>interest rate</i> is	<p>the publicly quoted prime rate of interest charged by [•] Standard Bank of South Africa Limited at the time an amount payable in SA Rand was due,</p> <p>and</p> <p>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 service 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>	
6	Compensation events	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.	
7	Rights to material	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	Indemnity, insurance and liability	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.	

82.1	The <i>Consultant'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
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 activity schedule	
21.3	The <i>Consultant</i> prepares forecasts of the total expenses at intervals of no longer than	2 weeks.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	
	Tel No.	
	Fax No.	
	e-mail	
W1.2(3)	The <i>adjudicator nominating body</i> is:	the Chairman of the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering. (See www.ice-sa.org.za).
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	South Africa
	The person or organisation who will choose an arbitrator	
	<ul style="list-style-type: none"> if the Parties cannot agree a choice or if the <i>arbitration procedure</i> does not state who selects an arbitrator, is 	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.
12	Data for secondary Option clauses	
X2	Changes in the law	
X2.1	The law of the project is	South African Law.

X5 & X7	Sectional Completion and delay damages used together			
X7.1 X5.1	Delay damages for late Completion of each <i>section</i> of the <i>services</i> are:	<i>section</i>	<i>description</i>	<i>amount per day</i>
		1	Submission of the LIDAR Survey reports	0,5% per week up to a maximum of 10% of the contract value
		2	Submission of Geotechnical Investigation reports	0,5% per week up to a maximum of 10% of the contract value
		3	Detailed design report	0,5% per week up to a maximum of 10% of the contract value
	Remainder of the <i>services</i>		0,5% per week up to a maximum of 10% of the contract value	
X9	Transfer of rights	There is no reference to Contract Data in this Option and terms in italics used in this Option are identified elsewhere in this Contract Data.		
X10	The <i>Employer's Agent</i>			
X10.1	The <i>Employer's Agent</i> is	TBC		
	Name:			
	Address			
	The authority of the <i>Employer's Agent</i> is			
X13	Performance bond			
X13.1	The amount of the performance bond is	10% of the contract value.		
X18	Limitation of liability			
X18.1	The <i>Consultant's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	R0.00 (Zero Rand)		
X18.2	The <i>Consultant's</i> liability to the <i>Employer</i> for Defects that are not found until after the <i>defects date</i> is limited to:	The total of the Prices		
X18.3	The <i>end of liability date</i> is	five years after Completion of the whole of the <i>services/task order</i> .		

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

Z1 Cession delegation and assignment

- Z1.1 The *Consultant* 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 *Consultant* 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 *Consultant* 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 *Employer* within two weeks of the Contract Date of the key person who has the authority to bind the *Consultant* on their behalf.
- Z2.3 The *Consultant* 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 *Consultant* in writing.

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

- Z3.1 Where a change in the *Consultant's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Consultant's* B-BBEE status, the *Consultant* notifies the *Employer* within seven days of the change.
- Z3.2 The *Consultant* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Employer* within thirty days of the notification or as otherwise instructed by the *Employer*.
- Z3.3 Where, as a result, the *Consultant's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Consultant's* obligation to Provide the Services.
- Z3.4 Failure by the *Consultant* 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 those stated in core clause 91. The payment on termination includes a deduction of the forecast of the additional cost to the *Employer* of completing the whole of the services in addition to the amounts due in terms of core clause 92.1.

Z4 Confidentiality

- Z4.1 The *Consultant* 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 *Consultant*, enters the public domain or to information which was already in the possession of the *Consultant* at the time of disclosure (evidenced by written records in existence at that time). Should the *Consultant* disclose information to Others in terms of clause 23.1, the *Consultant* ensures that the provisions of this clause are complied with by the recipient.
- Z4.2 If the *Consultant* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Employer*.
- Z4.3 In the event that the *Consultant* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Consultant*, 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 *Consultant* 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 *Employer's* project works or any portion thereof, in the course of Providing the Services and after Completion, requires the prior written consent of the *Employer*. All rights in and to all such images vests exclusively in the *Employer*.

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, 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 Provision of a Tax Invoice. Add to core clause 51

- Z6.1 The *Consultant* (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.

Z7 Notifying compensation events

- Z7.1 Delete from the last sentence in core clause 61.3, "unless the *Employer* should have notified the event to the *Consultant* but did not".

Z8 Employer's limitation of liability

- Z8.1 The *Employer's* liability to the *Consultant* for the *Consultant's* indirect or consequential loss is limited to R0.00 (zero Rand)

Z9 Termination: Add to core clause 90.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":

Z9.1 or had a business rescue order granted against it.

Z10 Delay damages: Addition to secondary Option X7 Delay damages (if applicable in this contract)

Z10.1 If the *Consultant's* payment of delay damages reaches the limits stated in this Contract Data for Option X7 or Options X5 and X7 used together, the *Employer* may terminate the *Consultant's* obligation to Provide the Services.

Z10.2 If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in core clause 91. The payment on termination includes a deduction of the forecast of the additional cost to the *Employer* of completing the whole of the *services* in addition to the amounts due in terms of core clause 92.1.

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 *Consultant* or a third party, such party's employees, agents, or Subconsultants or Subconsultant'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 *Consultant*, or any member thereof in the case of a joint venture, or its employees, agents, or Subconsultants or the Subconsultant'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 *Consultant's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Consultant* 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 *Consultant's* obligation to Provide the Services for this reason.

Z11.3 If the *Employer* terminates the *Consultant'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 *Consultant* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

- Z12.1 Replace core clause 81 with the following:

- 81.1 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.

- 81.2 The *Consultant* provides the insurances stated in the Insurance Table A from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover	For the period following Completion of the whole of the services or earlier termination
Liability of the <i>Consultant</i> for claims made against him arising out of his failure to use the skill and care normally used by professionals providing services similar to the <i>services</i>	Commercial and business to determine. [Delete this note after inserting]	Commercial and business to determine [Delete this note after inserting]
Liability for death of or bodily injury to a person (not an employee of the <i>Consultant</i>) or loss of or damage to property resulting from an action or failure to take action by the <i>Consultant</i>	<p><u>Loss of or damage to property:</u> The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible, as at Contract Date, where covered by the <i>Employer's</i> insurance</p> <p><u>Bodily injury to or death of a person:</u> The amount required by the applicable law.</p>	Commercial and business to determine [Delete this note after inserting]
Liability for death of or bodily injury to employees of the <i>Consultant</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law	Commercial and business to determine [Delete this note after inserting]

- 81.3 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 *Consultant* or any other person against any and all liabilities which the *Consultant* 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 *Consultant* or any other person or the presence of the *Consultant* or that person or any property of the *Consultant* 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 *Consultant* or any other person, or the presence of the *Consultant* or that person or any property of the *Consultant* 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, normalised 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 *Consultant* 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 *Consultant*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Consultant* may perform Parallel Measurements and related control measures at the *Consultant'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 *Consultant'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 *Consultant* 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 *Consultant*

[Instructions to the tendering consultant: (delete these notes in the final draft of a contract)]

1. The tendering consultant is advised to read both the NEC3 Professional Services Contract, April 2013 and the relevant parts of its Guidance Notes (PSC3-GN)² in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 158 & 159 of the PSC3 April 2013 Guidance Notes.
2. The number of the clause in the PSC3 which requires the data is shown in the left hand column for each statement however other clauses may also use the same data.
3. Whenever a cell is shaded in the left hand column it denotes this data is optional in PSC3 and would be required in relation to the option selected. The *Employer* should already have made the selection and deleted the rows not required.

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

Clause	Statement	Data
10.1	The <i>Consultant</i> is (Name): Address Tel No. Fax No.	
22.1	The <i>key people</i> are: 1 Name: Job: Responsibilities: Qualifications:	

² Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009 or www.ecs.co.za

	<p>Experience:</p> <p>2 Name:</p> <p>Job</p> <p>Responsibilities:</p> <p>Qualifications:</p> <p>Experience:</p>		
Only if required		CV's (and further <i>key persons</i> data including CVs) are appended to Tender Schedule entitled .	
11.2(3)	The <i>completion date</i> for the whole of the <i>services</i> is		
11.2(10)	The following matters will be included in the Risk Register		
11.2(13)	The <i>staff rates</i> are:	name/designation	rate
	Either complete here or cross refer to a schedule in Part C2.2		
25.2	The <i>Employer</i> provides access to the following persons, places and things	<p>access to</p> <p>1</p> <p>2</p> <p>3</p>	access date
31.1	The programme identified in the Contract Data is		
50.3	The <i>expenses</i> stated by the <i>Consultant</i> are	item	amount
A	Priced contract with activity schedule		
11.2(14)	The <i>activity schedule</i> is in		
11.2(18)	The tendered total of the Prices is	<p>R (in figures)</p> <p>(in words), excluding VAT</p>	

C1.3 Forms of Securities

Pro formas for Bonds & Guarantees

For use with the NEC3 Professional Services Contract

[Note to contract compiler:

Once it has been decided which securities are required for this contract delete from this file the ones not required, revise the notes below accordingly and delete this note.]

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

Option X4: Parent company guarantee
Option X13: Performance Bond

These secondary Options require a bond or guarantee “in the form set out in the Scope”. Pro forma documents for these bonds and guarantees are provided here for convenience but are to be treated as part of the Scope.

The *Consultant* shall guarantee his ASGI-SA Obligations by providing the *Employer* with an ASGI-SA Guarantee in the form provided here.

[Note to contract compiler: If there are no ASGI-SA Obligations in this contract, delete the above statement]

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 Consultant's Parent Company)

Eskom Holdings SOC Ltd
Megawatt Park
Maxwell Drive
Sandton
Johannesburg

Date:

Dear Sirs

Reference No. [●] *[Drafting Note: Bank reference number to be inserted]*

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

Project [] Contract Reference: *[Drafting Note: Consultant 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 Consultant, 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 "Consultant" – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. *[Drafting Note: Name and details of Consultant to be inserted]*
- 1.5 "Eskom" - means Eskom Holdings SOC Ltd, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/30].
- 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 Consultant as certified in terms of the contract have been received by Eskom and that the Consultant 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 if applicable.].

2. At the instance of the Consultant, 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 Consultant 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 Group Executive, Divisional Executive, Senior General Manager, General Manager or its delegate;
- 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 Consultant.
6. Eskom shall be entitled to arrange its affairs with the Consultant 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 Consultant or any variation under or to the Contract.
7. Should Eskom cede its rights against the Consultant 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: _____

Witness: _____

Bank's seal or stamp

Bank Signatory: _____

Witness: _____

PART 2: PRICING DATA
PSC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	2
C2.2	The <i>activity schedule</i>	2

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

Option A is a lump sum form of contract where the work to be done is broken down into well defined activities each listed in the *activity schedule* and priced by the tendering consultant as a lump sum. (See clause 11.2(18)).

Only completed activities which are without Defects are assessed for payment at each assessment date; no part payment is made if the activity is not completed by the assessment date. (See clause 11.2(15)).

The *activity schedule* may change after the Contract Date as a result of compensation events. (See clause 11.2(14)).

Function of the Activity Schedule

The Activity Schedule is only a pricing document. Clause 53.1 in Option A states: "Information in the Activity Schedule is not Scope". Specifications and descriptions of the service or any constraints on how it is to be done are included in the Scope and per Clause 21.1, "The *Consultant* Provides the Services in accordance with the Scope" and therefore not in accordance with the Activity Schedule.

Link to the programme

Clause 31.4 states that "The *Consultant* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance". Ideally the tendering consultant will develop a high level programme first then resource each activity on the programme and thus arrive at the lump sum price for that activity both of which can be entered into the *activity schedule*.

Preparing the activity schedule

Generally it is the tendering consultant who prepares the *activity schedule* by breaking down the work described within the Scope into suitable activities which can be well defined, shown on a programme and priced as a lump sum.

The description of each activity must be sufficient to determine exactly what work is included within it and to know when it has been completed.

The *Employer*, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the *Consultant* to include in his *activity schedule* and be priced accordingly.

It is assumed that in preparing his *activity schedule* the *Consultant*:

- Has taken account of the guidance given in the PSC3 Guidance Notes;
- Understands the function of the Activity Schedule and how work is priced and paid for;
- Is aware of the need to link the Activity Schedule to activities shown on each programme which he submits for acceptance by the *Employer*;
- Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the Service in accordance with the Scope, as it was at the Contract Date, as well as correct Defects except correcting a Defect for which the *Consultant* is not liable;
- Has priced work he decides not to show as a separate activity within the Prices of other listed activities in order to fulfil the obligation to complete the service for the tendered total of the Prices.
- Understands there is no adjustment to the lump sum Activity Schedule price if the amount, or quantity, of work within that activity later turns out to be different to that which the *Consultant* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event.

However, the *Consultant* does not have to allow in his Prices for matters that may arise as a result of a compensation event.

Expenses

Expenses are not included in the *activity schedule* items and are assessed separately at each assessment date, unless an additional condition of contract (Z clause) is included which requires that expenses be

included within activity Prices and not paid separately.

Expenses associated with employing a staff member in Providing the Services are listed separately either by the *Employer* in Contract Data provided by the *Employer* or by the *Consultant* in Contract Data provided by the *Consultant*. As only the *expenses* listed may be claimed by the *Consultant*, all other cost to the *Consultant* associated with Providing the Services must be included within the activity schedule prices or *staff rates*.

Rate adjustment for inflation of *expenses* is explained in the PSC3 Guidance Notes.

Staff rates

When a compensation event occurs changes to the affected Activity Schedule item or new priced items in the Activity Schedule are assessed as the actual Time Charge for work already done and the forecast Time Charge for work not yet done. (See clause 63.1 and 63.14 in Option A)

The Time Charge is the sum of the products of each of the *staff rates* multiplied by the total staff time appropriate to that rate properly spent on work in this contract. (Clause 11.2(13))

Tendering consultants are advised to consult the NEC3 Professional Services Contract Guidance Notes and Flow Charts before entering *staff rates* into Contract Data, or in C2.2 below.

This is because *staff rates* can be established in one of three ways:

- rates for named staff,
- rates for categories of staff or
- rates related to salaries paid to staff.

Rate adjustment for inflation, if necessary, can be based either on actual salary adjustments or by using Option X1: Price adjustment for inflation. See pages 13 and 14 in the PSC3 Guidance Notes.

C2.2 the *activity schedule*

Use this page as a cover page to the *Consultant's activity schedule* or include here in this format:

Item No.	Activity description	Price (excl VAT)
1.	LIDAR Survey	
2.	Geotechnical Investigation and Laboratory works	
3.	Review of Existing Information	
4.	Review of Current Ash Dump Operations	
5.	Geometric Design	
6.	Design of Seepage System & Stability Assessment	
7.	Hydrological Assessment and Water Balance	
8.	Design of Conveyors and associated infrastructure	
9.	Liner Feasibility	
10.	Topsoil Management Plan and Rehabilitation Plans	
11.	Project Management	
12.	Meetings	
13.	Documentation	
14.	Environmental Management	
15.	Liasion with Authorities	
16.	Compilation of Drawings	
17.	Compilation of Construction Technical Specifications	
18.	Compilation of Operating & Maintenance Manuals	
19.	Compilation of Construction BoQ	
	Total of the Prices	

This section can be used when the *staff rates* and *expenses* are considerable in number and more conveniently located here than in the Contract Data. Entries in the Contract Data should refer to this section of Part 2.

Remember to state whether the *staff rates* and *expenses* exclude or include VAT.

The *staff rates* are:

No.	Designation (or category) or name of staff member	Rate per {hour, day, month} excluding VAT

The *expenses* are:

No.	Expense item	Amount / rate excluding VAT

Document reference	Title	No of pages
C3.1	This cover page <i>Employer's Scope</i>	1
C3.2	<i>Consultant's Scope</i>	
	Total number of pages	

C3.1: EMPLOYER'S SCOPE

Contents

When the document is complete, insert a 'Table of Contents'. To do this go to: Insert, → Reference, → Index and tables → Table of Contents. Three levels and the title (but not the subtitle) may be shown if the formats used in this template are retained.

Otherwise insert list of contents manually.

1. Description of the services

Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

1.1 Executive overview

Lethabo power station is a coal-fired power station situated in the northern Free State province. The station has an output capacity of 3708 MW, which is produced by six 618MW units. The first production units went into commercial operation in December 1985 and the last unit was commissioned in December 1990. The station has a 50 year life so the end of life will be in 2040.

The station utilises coal as a primary source of energy to generate electricity. As such, ash is created as a by-product from the combustion process. Two forms of ash is generated namely coarse ash and fly ash. Coarse ash is removed from the bottom of the boilers, while fly ash is separated from the exhausted fumes/gases by means of electrostatic precipitators of the fly ash is conditioned with water before being transported to the ash disposal facility (ADF). The station generates approximately 23 000 tons of ash per day.

The ash disposal facility is located approximately 2km north east of Lethabo power station. This facility is classified as a dry dump (i.e. the disposed ash is in a semi-dry state). Ash is transported from the power station to the ash dump by means of dual overland conveyors. The ash dump is constructed by two stackers, each served by shiftable and extendable conveyors. The shiftable conveyors have been configured to shift radially. Thus, disposing ash in an arc formation.

The station's ash dump is nearing the end of its current radial shifting phase. Therefore, the current operations of the facility will need to be evaluated so that the ash dump growth development plan can be updated/modified. This project will require specialist knowledge of the ash disposal civil engineering design field from an appointed consultant as Eskom does not currently have the capacity in Generation Group to undertake this work. This document provides the scope of works for the assessment and development of the remaining ash disposal facility.

1.2 Interpretation and terminology

Definition	Description
Advancing Face	Describes the philosophy to which the dry ash dump is operated. Ash is placed, at its angle of repose, by a stacker-conveyor system in the direction to which the dump advances.
Angle of Repose	The maximum angle from horizontal at which a given material will rest on a given surface without sliding or rolling
Backstack	Ash stacked on top of the front stack with a Stacker behind the shiftable conveyor to create the final height of the dump. As the Stacker progresses from the shiftable conveyor's tail to its head station direction it simultaneously places ash by means of stacking it behind itself.
Extendable conveyor	A conveyor that is continuously extended as the ash stack advances. The extendable conveyor is connected to the shiftable conveyor and supplies ash received from the overland conveyor to the shiftable conveyor.
Frontstack	Ash is stacked from the level of the Stacker to a lower level, at an angle of repose, forming the advancing face of the dump.
Overland conveyor	Transfers ash from the power station to the ash

	disposal facility. The overland conveyor connects to the extendable conveyor.
Parallel Shifting	Shifting of a shiftable conveyor parallel to its previous position in the direction of the advancing face.
Radial Shifting	Shifting of the shiftable conveyor's head station by means of rotating it radially about a fixed point (tail station) towards the crest of the dump in the direction of the advancing face.
Shiftable conveyor	The shiftable conveyor is shifted parallel or radially (depending on the operating philosophy). Ash received from the extendable conveyor is provided to a tripper car. The tripper car transfers the ash on a link conveyor to supply the Stacker with ash.
Stacker	Mechanised ash stacking machine. A stacker has the capabilities to place ash in front of the shiftable conveyor followed by placing ash behind (backstack) the conveyor.

The following abbreviations are used in this Scope:

Abbreviation	Meaning given to the abbreviation
ADF	Ash Disposal Facility
BOQ	Bill of Quantity
ECSA	Engineering Council of South Africa
ERA	Engineering Risk Assessment
ITP	Inspection Test Plan
NCR	Non-conformance Report
NOD	Notice of Defect
QA	Quality Assurance
QC	Quality Control
QCP	Quality Control Plan
SANS	South African National Standards
SME	Subject Matter Expert
VDSS	Vendor Document Submission Schedule
WUL	Water Use License

2. Specification and description of the services

The ash dump is nearing the end of its current phase and requires evaluation according to the current conditions in order to determine a way forward for the next phase. Modification and relocation of the existing Bulk Material Handling (BMH) Stacker-Conveyor equipment is required for the dump's extension into Phase 2.

The original design considered shifting parallel with the two shiftable conveyors of which their systems are identical. Thus, the shiftable conveyors are capable of having a load split of 50:50 between the two conveyors.

The mechanised stacking configuration for the current phase, however, differs from the initial intended parallel shifting configuration. It entails radially shifting the conveyors from the outer perimeter of the dump, moving in a direction towards each other, i.e. to the middle of the dump. The two shiftable conveyors shift to the middle until they are in line with the extendable conveyors, to which these shiftable conveyors then become a part of the extendable system and new shiftable conveyors would have to be acquired for the following phase. Parallel shifting requires the extendable conveyors to be extended each time the shiftable conveyors are shifting so this Radial shifting concept was developed to eliminate the progressive extension of the extendable conveyors.

For the current Radial shifting concept a portion of the backstacks needed to be left out to allow the new straight shiftable conveyors to be erected from the end of the existing shiftable conveyors when converted to extendable conveyors. It appears that this shortening of the backstack has not been done and a decision must be made whether the portion of the backstack will have to be removed or whether additional dozing of the frontstack (or both) will be required to construct these platforms.

During the first phase of the Radial shifting concept, the load split between the two systems was operated at an 80 % utilisation on the main system and 20% on the standby system. During the second phase an ashing utilization as close to 50:50 is required.

The current radial shifting operating plan could however not be fully implemented as the mining operations developed slower than expected, which meant that the ash dump operations caught up with the strip mine's advancement. The operations and dump geometry were altered by shortening the shiftable conveyors in order to prevent this from occurring.

The southern shiftable conveyor was significantly shortened and no backstack was placed at the time. This was to allow for the shiftable conveyors to be brought back to the original position and the remainder of the frontstack and backstack to be placed. This changed the load split between the two systems to be operated at a 27 % utilisation on the main system and 63% on the standby system. Once the constraints are no longer applicable the intention is to return the load split to as close as possible to 50:50. However, the implications of the future mining operation's constraints are not fully known and would have to be determined within this assessment based on the mine growth plan, in particular when the mine's services (powerlines, pipelines and haul road) will be moved (this information can be found in Appendix A).

2.1 System Description

Lethabo Power Station produces two types of ash; fly ash from the Precipitators and coarse ash from the Submerged Scraper Conveyors (SSCs).

The current operations entail mixing the conditioned fly ash from the precipitators with the saturated coarse ash from the SSCs together onto the transverse conveyors. This mix is then conveyed to the ash dump. Ash is transported from the power station on an overland conveyor which connect to the extendable conveyors. The extendable conveyors supply ash to the shiftable conveyors which in turn supply the stackers. The existing system at Lethabo Power Station consists of two extendable conveyors (WA16/26) and two shiftable conveyors (WC18/28). The two systems are identical. The shiftable conveyors have now been configured to shift radially. Figure 1 depicts the progress of the dump as well as indicates the location of all the conveyor systems.

The two systems can be summarised as follows:

i. Main System

- Southern side of the dump
- Extendable Conveyor (WA 26)
- Shiftable Conveyor (WC 18)
- Stacker 1

ii. Standby System

- Northern side of the dump
- Extendable Conveyor (WA 16)
- Shiftable Conveyor (WC 28)
- Stacker 2

The dump is shaped to allow for drainage towards the centre into well-established drainage system and dams.

The dump is constructed on uncompacted mine backfill material of a previously strip mined area consisting of heaps of overburden rock covered by a layer of alluvial sand (see Figure 2). Both the mine and the ash dump's operations progress towards the north-western side of the site (see Figure 1). The following image obtained from the operations manual depicts the backfill operation implemented by the mine. Blasted overburden and interburden are backfilled by means of a dragline, creating sharp crested rock backfill heaps. Alluvial sands are loosely dumped onto these spoil heaps and levelled to 1429 m a.m.s.l. The ash dump is located within a close proximity to the Vaal River. During the mine's operations the groundwater table is artificially lowered and will eventually re-establish itself horizontally to the level of the Vaal River or 1421 m a.m.s.l. The depth of backfill can be up to 50 m.



Figure 1: Orthophoto of Lethabo Power Station ADF

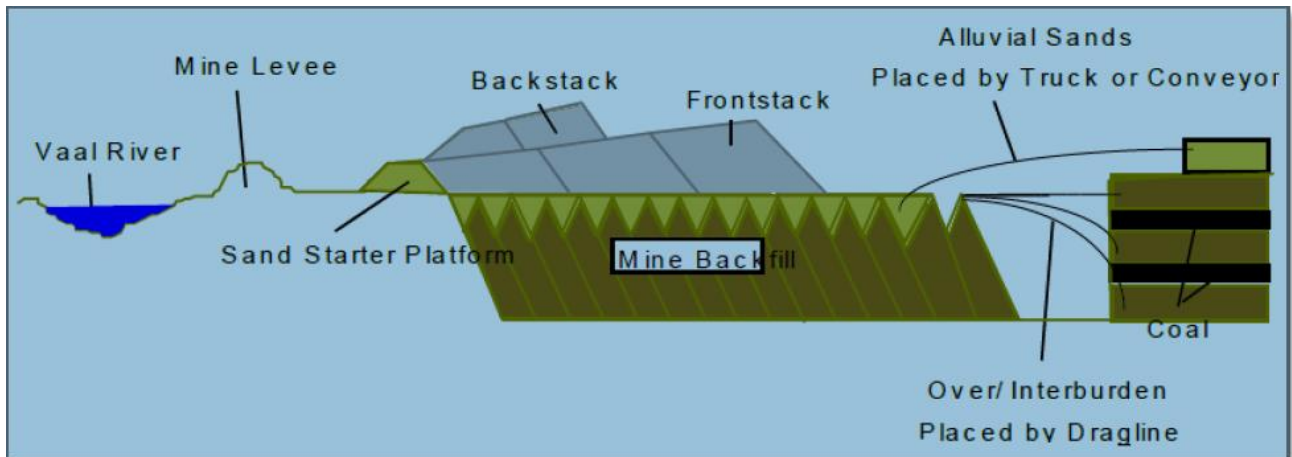


Figure 2: Backfill operations of the open cast strip mine (Roshcon BMS, 2012)

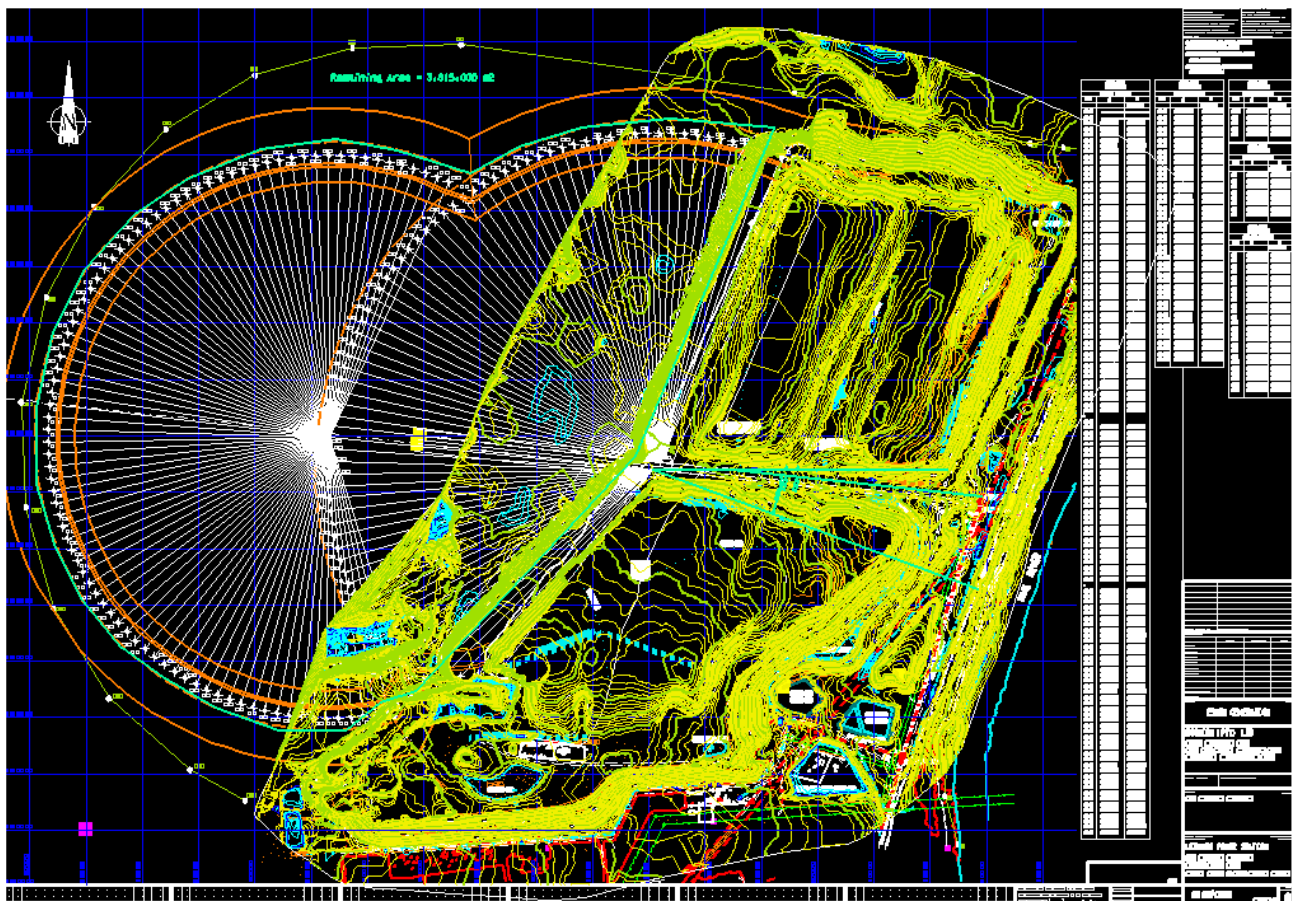


Figure 3: Radial Shifting Ash Dump construction concept layout

2.2 EMPLOYER'S DESIGN REQUIREMENTS

All designs and/or assessments are to be in accordance with the following Employer's Design Standards and relevant SANS standards:

- 240-56364545: Structural Design and Engineering Standard
- 240-107981296: Constructability Assessment Guideline
- 240-99527377: Inspection Manual for Civil Works at Eskom's Power Station
- 240-53113685: Design Review Procedure
- 240-56364545: Structural Design and Engineering Standard
- Lethabo Power Station Ash Dump Operating Manual, Rev 01 (First Draft), Roshcon BMS, 2012.
- Lethabo Power Station: An investigation of the disposal of Ash, Steffen, Robertson and Kirsten, 1982.
- 240-125171334: Guideline for the Design of Ash Disposal Facilities for Coal Fired Power Stations
- 240-92460850: Geotechnical Standard for CSY and ADF Site Investigation
- Drawing 23.63/55354 Sheet 1 Rev 0, Lethabo Power Station Ash Disposal Facility Layout March 2009
- National Water Act, Act 36 of 1998
- National Environmental Management Act, Act no 107 of 1998
- National Environmental Management Waste Act, Act 59 of 2008
- Regulations GN 704 and GN R 139
- NEMWA National Norms and Standards (GN R 634, 635, 636) (2013), DEA
- 32-727 – Eskom Safety, Health, Environment and Quality (SHEQ) Policy
- Occupational Health and Safety Act (Act 85 of 1993)
- Lethabo WUL :Licence No. 08/C22F/ABG/1002 FILE NO. 16/2/7/C22F/
- SANS 10400: The application of the National Building Regulation
- 240-4332798: Eskom's Engineering Policy
- 240-53113685: Design Review Procedure
- 474-58 (Rev1): Document and Records Management
- 240-53114002 Engineering Change Management Procedure
- 240-43898151: Perform verification and validation PCM
- 240-86973501: Eskom Drawing Standard
- [20] Operation & Maintenance Manual and Emergency Preparedness Plan for the Ash Dams at Lethabo Power Station

2.3 Stage 1 Preparation

Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

2.4 Stage 2 Concept

Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

2.5 Stage 3: Design development

Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

2.6 Stage 4: Production information

Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

2.7 Stage 5: Manufacture, Installation and Construction Information:

Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

2.8 Stage 6: Post Practical Completion

Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

3. Constraints on how the *Consultant* Provides the Services.

3.1 Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk Reduction Meeting	As and when required	To be confirmed	<i>Employer's Agent, Consultant's representative, Supervisor</i>
Compensation events	As and when required	To be confirmed	<i>Employer's Agent, Consultant's representative, Supervisor</i>
Overall contract progress and feedback	To be agreed upon contract award	To be confirmed	<i>Employer's Agent, Consultant's representative, Supervisor</i>
Kick off meeting	After contract award	To be confirmed	<i>Employer's Agent, Consultant's representative, Supervisor</i>

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *works*. Records of these meetings shall be submitted to the *Employer's Agent* by the person convening the meeting within five days of the meeting.

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

3.2 *Consultant's key persons*

The *Consultant* is to provide a detailed organogram at tender. The organogram must clearly indicate the employee's details. In the event of any person within the *Consultant's* organogram changing, the *Consultant* is to obtain approval for the replacement from the *Employer's Agent*.

3.3 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 *Consultant* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

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

3.4 Documentation control and retention

3.4.1 Identification and communication

- All communication will be via email or confirmed via email in the case of telephonic or verbal discussions. Emails shall be sent to the *Employers Agent* for distribution to the relevant parties or the *Employers Agent* shall at the least be included in the list of recipients.
- All contractual communications shall be in the form of standard NEC letters and forms attached to an email or confirmed by email in the case that a hard copy is handed to the *employer's agent*. All correspondence shall include the following:
 - a. Lethabo Power Station
 - b. Date
 - c. *Employer* contract number
 - d. Contract description
 - e. Correspondence subject matter
 - f. *Contractor* reference number
 - g. *Employer* reference number
 - h. Telephone number
 - i. Fax number
 - j. Reference to the relevant NEC Clause(s) (if applicable)

3.4.2 Retention of documents

Clause 13.6 states that the *Consultant* retains copies of drawings, specifications, reports and other documents which record the *services* in the form stated in the Scope. State here what that form is. Note the time period for which the *Consultant* is to retain such documents is the *period for retention* stated in the Contract Data.

3.4.3 Invoicing and payment

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

The *Consultant* shall address the tax invoice to Eskom Holdings SOC Ltd and include on each invoice the following information:

The *Contractor* shall address the tax invoice to:

Lethabo accounts payable section (APS).
Private Bag x 415
Vereeniging
1930
E-mail their pdf format to Invoiceseskomlocal@eskom.co.za

and include on each invoice the following information:

- Name and address of the *Contractor*.

- The contract number and title.
- *Contractor's* VAT registration number.
- The *Employer's* VAT registration number 4740101508.
- The total Price for Work Done to Date which the *Contractor* has completed.
- Other amounts to be paid to the *Contractor*.
- Less amounts to be paid by or retained from the *Consultant*.
- The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT.

3.4.4 Contract change management.

The change management process for addressing changes on the contract will be as follows.

- All official communication between the *Consultant* and the *Employer's Agent* shall be in the form of an appropriate NEC form and/or letter.
- All requests for contract changes shall be submitted in writing by the *Consultant* to the *Employers Agent* as per the terms and condition of the contract.
- The *Employers Agent* will follow the prescribed requirements for managing contract changes as per his/her delegation of authority.
- The *Consultant* shall ensure that all changes accepted by the *Employers Agent* are documented and kept as record.

3.4.5 Inclusions in the programme

- The *Consultant* shall submit the first programme to the *Employers Agent* for acceptance within the period stated in the Contract Data and it must be updated as per the intervals prescribed in the Contract Data.
- The Accepted Programme at the Contract Date serves as a baseline for the execution of the works until the latter of the defects date or the end of the defect's correction period. This baseline shown on all subsequent graphical presentations of revised programmes.
- The *Consultant* shall submit a program, compiled in Microsoft Project or similar program, which will provide details of the list of activities and the duration of each activity.
- The *Consultant* submits a program two weeks after award of the contract showing the following:
 - the *starting date*, *access dates*, Key Dates and Completion Date,
 - planned Completion,
 - the order and timing of the operations which the *Consultant* plans to do in
 - order to Provide the Services,
 - the order and timing of the work of the *Employer* and Others as last agreed
 - with them by the *Consultant* or, if not so agreed, as stated in the Scope,
 - the dates when the *Consultant* plans to meet each Condition stated for the
 - Key Dates and to complete other work needed to allow the *Employer* and

- Others to do their work,
- 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 Services in accordance with his programme, the *Consultant* will need access to a person, place or thing if later than its *access date*,
 - information and things to be provided by the *Employer* and
 - information and approval from Others,
 - for each operation, a statement of how the *Consultant* plans to do the work
 - identifying the resources which he plans to use and
 - other information which the Scope requires the *Consultant* to show on a
 - programme submitted for acceptance.

3.5 Quality management

3.5.1 System requirements

Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

3.5.2 Information in the quality plan

Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

3.6 The Parties use of material provided by the *Consultant*

3.6.1 *Employer's* purpose for the material

Clause 70.1 states that the *Employer* has the right to use the material provided by the *Consultant* for the purpose stated in the Scope.

3.7 Health and safety

- The *Consultant* and his sub-*Consultant* ensure at all times compliance with safety regulations imposed by any Act of Parliament, ordinance or any regulation or by-law of any local or statutory authority.
- The *Consultant* acts in accordance with the health and safety requirements stated in the Works Information.
- In carrying out its obligations to the *Employer* in terms of this contract; in Providing the Works; in using Plant, Materials and Equipment; and while at the Site for any reason, the *Consultant* complies and procures and ensures the compliance by its employees, agents, Sub-*Consultants*, and mandataries with:
 - the provisions of the Occupational Health and Safety Act 85 of 1993 (as amended) and all regulations in force from time to time in terms of that Act ("the OHSA"); and the Eskom "Health, Safety and Environmental specifications for *Contractors*" document attached to the Works Information (as amended from time to time) and such other Eskom Safety

Regulations as are applicable to the *works* and are provided in writing to the *Consultant* (collectively "the Eskom Regulations"). The Eskom Regulations may be amended from time to time by the *Employer* and all amendments will be provided in writing to the *Consultant*. The *Contractor* complies with the provisions of the latest written version of the Eskom Regulations with which it has been provided; and the health and safety plan prepared by the *Consultant* in accordance with the SHEQ Requirements (The OHSA and the Eskom Regulations are collectively referred to as the "SHEQ Requirements".)

- The *Consultant*, at all times, considers itself to be the "*Employer*" for the purposes of the OHSA and shall not consider itself under the supervision or management of the *Employer* with regard to compliance with the SHEQ Requirements, the *Consultant* shall furthermore not consider itself to be a subordinate or under the supervision of the *Employer* in respect of these matters. The *Consultant* is at all times responsible for the supervision of its employees, agents, Sub-*Consultants*, and mandataries and takes full responsibility and accountability for ensuring they are competent, aware of the SHEQ Requirements and execute the *works* in accordance with the SHEQ Requirements
- The *Consultant* acknowledges that it is fully aware of the requirements of all the above and undertakes to employ only people who have been duly authorized in terms thereof and who have received sufficient training to ensure that they can comply therewith.
- The *Consultant* ensures that all statutory appointments and appointments required by any Eskom Regulations are made and that all appointees fully understand their responsibilities and are trained and competent to execute their duties. The *Consultant* supervises the execution of their duties by all such appointees.

The *Employer*, or any person appointed by the *Employer*, may, at any stage during the duration of this contract:

- conduct health and safety audits regarding all aspects of compliance with the SHEQ Requirements, at any off-site place of work, or the site establishment of the *Contractor*. refuse any employee, Sub *Consultant*, or agent of the *Consultant* access to the premises if such person has been found to commit an unsafe act or any unsafe working practice or is found not to be qualified or authorised in terms of the SHEQ Requirements.
 - issue the *Consultant* with a stop order should the *Employer* become aware of any unsafe working procedure or condition or any non-compliance with any provision of the SHEQ Requirements.
 - The *Consultant* immediately reports any disabling injury as well as any threat to health or safety of which it becomes aware at the *works* or on the Site to the *Employer's Agent*.
-
- The *Consultant* undertakes not to do, or not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.
 - The *Consultant* appoints a person, qualified in accordance with the SHEQ Requirements, as the liaison with the Eskom Safety Officer for all matters related to health and safety, this person shall be reachable 24 hours a day.
 - The *Consultant* confirms that it has been provided with sufficient written information regarding the health and safety arrangements and procedures applicable to the *works* to ensure compliance by it and all employees, agents, Sub- *Consultant*, or mandataries with the SHEQ Requirements while Providing the Works in terms of this contract. As such, the *Contractor* confirms that this contract and the relevant Eskom Regulations referred to in this contract constitute written arrangements and procedures between the *Consultant* and the *Employer* regarding health and safety for the purposes of section 37(2) of the OHSA.
 - The *Consultant* agrees that the *Employer* is relieved of any and all of its responsibilities and liabilities in terms of Section 37(1) of OHSA in respect of any acts or omissions of the *Consultant*, and the *Contractor's* employees, agents, or Sub-*Contractors*, to the extent permitted by the OHSA.
 - The *Consultant* hereby indemnifies the *Employer* and holds the *Employer* harmless in respect of any and all loss, costs, claims, demands, liabilities, damage, penalties or expense that may be made against the *Employer* and/or suffered or incurred by the *Employer* (as the case may be) as a result of, any failure of the *Consultant*, its employees, agents, Sub- *Consultants* and/or mandataries to comply with their obligations in terms of clause 16, and/or the failure of the *Employer* to procure the compliance by the *Contractor* , its employees, agents, Sub *Consultants* and/or mandataries with their responsibilities and/or obligations in terms of or arising from the OHSA.

- In carrying out his obligation as the mandatory to the *Employer* for this contract in terms of the National Environmental Management Act No.107 of 1998, the *Consultant* ensures that he complies with the Act when Providing the Services or using plant, materials, or equipment.

3.7.1 Access to and Departure from the Site:

- The Site is at Lethabo Power Station situated ± 18 km South of Vereeniging on the Viljoensdrift - Deneysville Road, Free State. Access to the site will be via the main security gate only. The *Employer* informs the *Contractor* of the access procedures, and it should be expected that such procedures may change depending on the prevailing security situation.
- The *Contractor* allows in his price and program for delays at the security gate. The *Employer* reserves the right for its Security personnel to search persons or vehicles entering or leaving the premises. This includes but is not limited to briefcases and toolboxes.

3.7.2 Temporary Gate Permits

- The *Consultant* provides the *Employer* with the personal details of their staff at least two days prior to the occupation date. All names and details to be submitted to the *Employer* who arranges for all gate permits.

3.7.3 Equipment or Material Access and Removal

Access

- The *Consultant* ensures that all equipment and materials brought through the security gate is signed in at the main security gate on an OV18 form.

Removal

- The *Consultant* is not allowed to remove any equipment or materials from site without producing the relevant OV18 forms or the equipment lists.
- If the equipment or material is to be removed the same day, on which they were brought on to site, then the OV18 form will need to be produced at the gate when leaving the site.
- If the equipment or material is removed after this time then a Non-Returnable Gate Release will be provided by the *Project Manager*, on receipt of the original OV18, with which the *Consultant* brought the equipment on site.

3.8 Procurement

3.8.1 Correction of Defects

- Refer to **Lethabo Power Station Ash Dump Extension Technical Specifications 375-LET-AABZ18-PN0017-11**

3.8.2 Working on the *Employer's* property

- The *Consultant* takes reasonable care to ensure that equipment used does not cause damage to any existing infrastructure. In the event that such damages do occur to the surrounding infrastructures, the *Consultant* is responsible for repairing such damages and is liable for all costs associated with the repairs.

3.8.3 *Employer's* entry and security control, permits, and site regulations

- Refer to C4 Site information

3.8.4 People restrictions, hours of work, conduct and records

- Normal working hours must be maintained as far as possible. The normal working hours on site will be from 07:15 am to 16:30pm Monday to Thursday and 07:15 am to 12:00pm on Fridays. Should the Contractor wish to work outside these normal working hours, he should notify the Project Manager in writing.

3.8.5 Cooperating with and obtaining acceptance of Others

- The *Consultant* co-operates with Others in obtaining and providing information which they need in connection with the *services*.

3.9 Things provided by the *Employer*

The *Consultant* shall inform the employer in writing prior site visits for inspections.

4. List of drawings

4.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

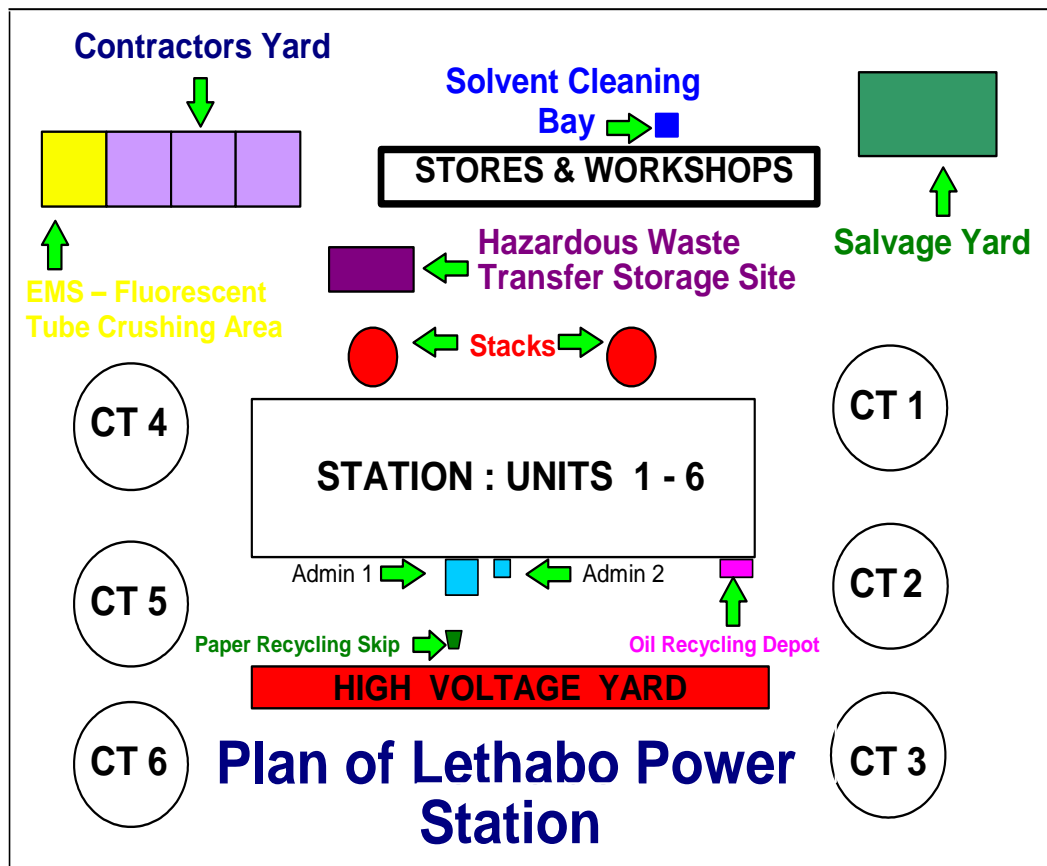
Drawing number	Revision	Title
Drawing 23.63/55354 Sheet 1	Rev 0	Lethabo Power Station Ash Disposal Facility Layout March 2009
0.63/49045	Rev 2	Lethabo Ash Dump Roads, Dams, Drains and Structures
46174.07.pdf	Rev 2	IN PIT ASH DUMP GENERAL ARRANGEMENT
46322_001.00.pdf	Rev 2	ASH DUMP NORTHERN SECTION STORMWATER DRAINAGE LAYOUT AND SECTIONS LOCALITY PLAN
49611_007.00.pdf	Rev 2	ASH DUMP COMPLEX STORMWATER PHASE 1 PENSTOCK PLAN, SECTIONS AND DETAILS
49651.00.pdf	Rev 2	ASH DUMP COMPLEX FLOOD LEVEL DAM AND CANAL DETAILS
49689_001.00.pdf	Rev 2	ASH DUMP COMPLEX STORMWATER PHASE 1 GENERAL ARRANGEMENT
49689_002.02.pdf	Rev 2	ASH DUMP COMPLEX STORMWATER PHASE 2 GENERAL ARRANGEMENT
46187.03.pdf	Rev 2	INTERMEDIATE ASH DUMP GENERAL ARRANGEMENT

5.1 Site services and facilities

5.1.1 Provided by the Employer

Waste shall be removed promptly to the designated disposal area as per below requirements:

- Domestic waste to the white waste bins
- No stockpiling will be permitted
- Production waste in the marked bins i.e. coal and ash only
- Paper in its recycling bin
- Contact Civil Engineering for the disposal of building rubble
- Scrap metal, Wood & Rubber, Redundant Valves, Pipes, and Equipment etc. to be placed in the marked bins in the Salvage Yard. Solvents and cloths used to the Cleaning Bay.



Hazardous Waste Disposal and Handling

- Any new hazardous waste that comes to the temporary hazardous waste site must be accompanied by an SDS; all other hazardous waste can be delivered without the SDS.
- An inventory is signed by the person who delivers the hazardous waste and the waste coordinator must acknowledge the receipt of the waste.
- A 210l drum with lid will be issued to the person who has delivered the waste after the inventory is signed.

Drums with incorrect colour coding or drums without lids will not be accepted at the temporary hazardous waste site.

5.1.2 Provided by the *Contractor*

Access

- The *Contractor* ensures that all equipment and materials brought through the security gate is signed in at the main security gate on an OV18 form.

Removal

- The *Contractor* is not allowed to remove any equipment or materials from site without producing the relevant OV18 forms or the equipment lists. (Security Access Sign In)
- If the equipment or material is to be removed the same day, on which they were brought on to site, then the OV18 form will need to be produced at the gate when leaving the site.
- If the equipment or material is removed after this time then a Non-Returnable Gate Release will be provided by the *Employer's Representative*, on receipt of the original OV18, with which the *Contractor* brought the equipment on site.

5.2 Control of noise, dust, water and waste

- All necessary and relevant PPE must be used at all time when entering or working on plant
- Risk assessments must be completed before commencing with any task to be current at all times (Live Document)
- All relevant procedures to be used at all times

5.3 Hook ups to existing works

The Employer reserves the right to have any of the Contractor's personnel removed off site without cancelling the contract if, in the Employer's opinion, it is warranted.

- The Employer reserves the right to request disciplinary / corrective action if, and when, required.
- The main Contractor is accountable for the management of their sub-contractors and suppliers and to ensure that the applicable legal and the Employer's requirements (applicable during contract execution) are complied with by the sub-contractors and suppliers (all tiers). If there are non-conformances / non-compliance to applicable legal and the Employer's requirements identified, then the Main Service Provider/Principle Contractor will be penalised.
- The Contractor shall operate under the direction and instructions of the Employer's Manager or such person/people as may be appointed by him if not in conflict with the Occupational Health and Safety Act and the Generation Plant and Safety Regulations.
- The Contractor shall maintain a high standard of workmanship expected by the Employer and shall comply with any quality assurance and quality procedures implemented by the Employer.
- The Employer reserves the right to have any of the Contractor's personnel removed off site without any compensation to the Contractor in the event of the Contractor's personnel being in contravention with the OHS Act or any of the Employers rules, regulations and procedures
- The Employer reserves the right to terminate the contract, once 3 non-conformances / PIR's are raised against the Contractor
- The Employer reserves the right to request disciplinary/corrective action if, and when, required.
- The Contractor must submit Curriculum Vitae's of its entire staff prior to work commencing on site.
- The Contractor must submit certified copies of qualifications and or certificates of its entire staff prior to work commencing on site.
- The Contractor will be responsible for the full payment of the legislative training costs for every employee at the Contractor's cost, in the event that the employee have to redo the training due to failing at the first attempt as well as the subsequent attempts that follows until the employee is authorised.
- All unknown / known services will be brought to the attention of the Contractor by Service Manager. Should the Contractor encounter any other services in the work area, he will immediately bring them to the attention of the Service Manager who will issue instructions as to what actions are to be taken.
- No welding will be allowed on site unless permission is granted in writing by the Service Manager.
- The Employer's carries no responsibility for unforeseen delays unless such a delay is negotiated within 24 hours of the occurrence and written agreement is submitted by the Employer.

- Care must be taken to prevent damage to any surroundings such as the plant, roads and equipment in and around existing buildings.
- The Contractor and his employees will be required to conduct themselves at all times in proper and orderly manner while on the Employer's premises.
- The Contractor and his employees may only smoke in the allowed / designated areas.
- The Employer will take immediate steps to institute criminal investigations in the event of any suspected criminal acts e.g. theft etc.