

NEC3 Term Service Contract (TSC3)

Between ESKOM HOLDINGS SOC Ltd (Reg No. 2002/015527/30)

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

for Provision of acoustic leak detection test (V-Service) to quantify valve leakage into Condenser and contribution to PCLF on an as and when required basis at Nuclear Operating Unit

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CONTRACT No. [Insert at award stage]

⊕Eskom

2024-04-29

Shandré Brown

Q3/L2 Service

Procurement Quality Engineering

PART C1: AGREEMENTS & CONTRACT DATA

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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:

Provision of acoustic leak detection test (V-Service) to quantify valve leakage into Condenser and contribution to PCLF on an as and when required basis at Nuclear Operating Unit

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.

Option A	The offered total of the Prices exclusive of VAT is	As per Price list
	Value Added Tax @ 15% is	As per Price list
	The offered total of the amount due inclusive of VAT is ¹	As per Price list

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.

Name(s)		
(0)		
Capacity		
For the tenderer:		
Name & signature of witness	(Insert name and address of organisation)	Date
Tenderer's CII	DB 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 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

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

Signature(s)			
Name(s) Capacity			
Сараспу			
for the <i>Employer</i>	Eskom Holdings SOC Limited Koeberg Nuclear Power Station R27 off West Coast Road Melkbostrand South Africa, 7440		
Name &	(Insert name and address of organisation)		
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 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	[•]	[•]

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 <i>Employer</i>
Signature		
Name		
Capacity		Eskom Holdings SOC Limited Koeberg Nuclear Power Station R27 off West Coast Road Melkbosstrand South Africa, 7440
On behalf of	(Insert name and address of organisation)	(Insert name and address of organisation)
Name & signature of witness		
Date		

C1.2 TSC3 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data	
1	General		
	The conditions of contract 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	
		X18: Limitation of liability	
		X19: Task Order	
		Z: Additional conditions of contract	
	of the NEC3 Term Service Contract April 2013 ² (TSC3)		
10.1	The <i>Employer</i> is (name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa	
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg	
10.1	The Service Manager is (name):	Mr Khutso Moahloli	
	Address	Private Bag X10, Kernkrag, Republic of South Africa, 7440	
	Tel	(021) 522 3018	
	e-mail	MoahloKK@eskom.co.za	
11.2(2)	The Affected Property is	Koeberg Nuclear Power Station	
11.2(13)	The service is	The provision of acoustic leak detection test (V-Service) to quantify valve leakage into Condenser and contribution to PCLF on an as and when required basis at Nuclear Operating Unit (NOU)	

² Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902 www.ecs.co.za

11.2(14)	The following matters will be included in the Risk Register	 Matters notified under early warning procedure Matters that arise from risk reduction meetings Any other matters at the discretion of the Service Manager 	
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 law of the contract is the law of	the Republic of South Africa	
13.1	The language of this contract is	English	
13.3	The period for reply is	Non-Outage periods: one (1) week for general correspondence, except otherwise agreed by parties in the relevant Task Order.	
		Outage period: twenty-four (24) hours	
2	The <i>Contractor</i> 's main responsibilities	Data required by this section of the core clauses is also provided by the <i>Contractor</i> in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data	
3	Time		
30.1	The starting date is.	01 August 2024	
30.1	The service period is	5 (five) years	
4	Testing and defects	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	
5	Payment		
50.1	The assessment interval is	between the 24 th and 25 th day of each successive month.	
51.1	The currency of this contract is the	To be determined by contract award	
51.2	The period within which payments are made is	Four (4) weeks after receipt of a valid tax invoice.	
51.4	The interest rate is	(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	
		(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 service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* 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.

52.1	The expenses stated by the Employer for Compensation Events are	Item	Amount
		Accommodati on	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: • 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 to	erms of:
		Government 0	Sazette No.37042 dated 15 November 2013,
			gulations (published under Government Notice arch 2005, as amended)
		Treasury Cos	ective for the Implementation of the National st Containment Instruction and Government 240-78635659) Error! Reference source not

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	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 <i>Employer</i> 's risks	 Delay to the start of an outage Additional risks (if any) to be identified and recorded in the risk register during contract execution.
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	
А	Priced contract with price list	
20.5	The Contractor prepares forecasts of the final total of the Prices for the whole of the service at intervals no longer than	Four (4) weeks prior to the end of each assessment interval.
11	Data for Option W1	
W1.1	The Adjudicator	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).
W1.2(3)	The Adjudicator nominating body is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the Institution of Civil Engineers (London) (see www.ice-sa.org.za) or its successor body.
W1.4(2)	The tribunal is:	arbitration
W1.4(5)	The arbitration procedure is	the latest edition of Rules for the Conduct of Arbitrations published by the Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Cape Town South Africa
	The person or organisation who will choose an arbitrator	
	 if the Parties cannot agree a choice or if the arbitration procedure 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	
X1	Price adjustment for inflation	Contract Price Adjustment (CPA) is applicable to this transaction. The contract will be fixed for

		the first 12 months of the contract period; thereafter CPA with a stipulated fixed and variable portion will be linked to the appropriate indices.
		Staff rates are not variable with changes in salary paid to individuals except in the application of X1.
X1.1	The preparties a used to calculate the	the month before the month in which the enquiry closes.
	The proportions used to calculate the Price Adjustment Factor are:	Labour
	The Adjustment Faster are.	0.90 Labour SEIFSA Table C3 – All hourly paid employees
		0.10 Non-Adjustable
		All other charges/rates
		0.90 All other rates SEIFSA Table D2 - Consumer Price Index
		0.10 Non- Adjustable
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.
X18	Limitation of liability	
X18.1	The Contractor's liability to the Employer 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 Contractor's liability for Defects due to his design of an item of Equipment is limited	The greater of
	to	the total of the Prices at the Contract Date and
		the amounts excluded and unrecoverable from the <i>Employer</i> 's insurance (other than the resulting physical damage to the <i>Employer</i> 's property which is not excluded) plus the applicable deductibles
X18.4		The total of the Prices other than for the additional excluded matters.
	the excluded matters, is limited to	The <i>Contractor's</i> total liability for the additional excluded matters is not limited.
		The additional excluded matters are amounts for

which the *Contractor* is liable under this contract for

- 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 *Employer*'s property, Plant and Materials),
- death of or injury to a person and
- Infringement of an intellectual property right.

X18.5	The <i>end</i> of <i>liability date</i> is	For all latent or patent Defects, 18 months after the last <i>service</i> Defect has been remedied.
X19	Task Order	
X19.5	The Contractor submits a Task Order programme to the Service Manager within	Two (14) days from the receipt of a 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 7 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 30 days of the notification or as otherwise instructed by the *Service Manager*.

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- 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

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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.

- 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*."
- 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 *Contractor* 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 *Contractor*, 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

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

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INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage caused by the <i>Contractor</i> to the <i>Employer</i> 's property	The replacement cost where not covered by the Employer's insurance.
	The <i>Employer</i> 's policy deductible as at Contrac Date, where covered by the <i>Employer</i> 's insurance.
Loss of or damage to Plant and Materials	The replacement cost where not covered by the Employer's insurance.
	The <i>Employer</i> 's policy deductible as at Contrac Date, where covered by the <i>Employer</i> 's insurance.
Loss of or damage to Equipment	The replacement cost where not covered by the Employer's insurance.
	The <i>Employer</i> 's policy deductible as at Contrac Date, where covered by the <i>Employer</i> 's insurance.
The Contractor's liability for loss of or damage to property (except the Employer's	Loss of or damage to property The replacement cost
property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor</i> 's Providing the Service	Bodily injury to or death of a person The amount required by the applicable law.
Liability for death of or bodily injury to employees of the Contractor arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law

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 lir 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

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

Z14 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 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

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 means measurements performed in parallel, yet separately, to existing measurements

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 me

means the *Employer*'s 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.

- 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.
- Upon written request by the *Contractor*, 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 *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.
- 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.
- 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:

- Please read both the both the NEC3 Term Service Contract April 2013 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 Contractor is (Name):	
	Address	
	Tel No.	
	Fax No.	
11.2(8)	The direct fee percentage is [The direct fee percentage is the figure that represents the Contractor's head office overheads and profit in respect of the Contractor's own work. This is used as the direct fee which is added to Defined Cost.]	%
	The subcontracted fee percentage is [The subcontracted fee percentage is the figure that represents the Contractor's head office overheads and profit in respect of subcontracted work. This is used as the subcontracted fee which is added to Defined Cost.]	%
11.2(14)	The following matters will be included in the Risk Register	Minutes of early warning meetings and all deviations from the Scope of Work
		 Early Warnings Minutes of early warning meetings Decisions resulting from risk reduction meetings. Service Manager's Instruction Notifications of Compensation Event Significant delays experienced Major anomalies noted

³ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 5391902 or www.ecs.co.za

11.2(15)	The Service Information for the Contractor's plan is in: Part 3: Scope of Work which it refers.		Part 3: Scope of Work and all documents to which it refers.
21.1	The plan identified in the Contract Data is contained in:		Part 3.1.2 <i>Employer's</i> requirements for the service`
24.1	The key people are:		
	1	Name:	
		Job:	
		Responsibilities:	
		Qualifications:	
		Experience:	
	2	Name:	
		Job	
		Responsibilities:	
		Qualifications:	
		Experience:	
	qualific	insert the name, job, responsibilities, ations, and experience of its key people. e for additional key persons if necessary	CV's (and further key person's data including CVs) are in .
	direct in	Ensure that the key people listed have involvement with the contract (not CEO, D's of company or parent company the individual has an active role in the cit)	
A	Price	d contract with price list	

Α	Priced contract with price list		
11.2(12)	The price list is in	Part 2: Pricing data	
11.2(19)	The tendered total of the Prices is	Rates based	

PART 2: PRICING DATA TSC3 Option A

Document reference		Title	No of pages
	C2.1	Pricing assumptions: Option A	
	C2.2	The price list	

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

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

Identified and 11 defined terms 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*

Before preparing the *price list*, both the *Employer* and tendering contractors should read the TSC3 Guidance Notes pages 14 and 15. In an Option A contract, either Party may have entered items into the *price list* either as a process of offer and acceptance (tendering) or by negotiation depending on the nature of the *service* to be provided. Alternatively, the *Employer*, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the *Contractor* to include in the *price list* to be prepared and priced by him.

CONTRACT TITLE: PROVISION OF ACOUSTIC LEAK DETECTION TEST (V-SERVICE) TO QUANTIFY VALVE LEAKAGE INTO CONDENSER AND CONTRIBUTION TO PCLF ON AN AS AND WHEN REQUIRED BASIS AT NUCLEAR OPERATING UNIT

It is assumed that in preparing or finalising the *price list* the *Contractor:*

- Has taken account of the guidance given in the TSC3 Guidance Notes relevant to Option A;
- Understands the function of the Price List and how work is priced and paid for;
- Is aware of the need to link operations shown in his plan to items shown in the Price List;
- Has listed and priced items in the price list which 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;
- Has priced work he decides not to show as a separate item within the Prices or rates of other listed items in order to fulfil the obligation to complete the service for the tendered total of the Prices.
- Understands there is no adjustment to items priced as lump sums if the amount, or quantity,
 of work within that item later turns out to be different to that which the *Contractor* estimated at
 time of tender. The only basis for a change to the (lump sum) Prices is as a result of a
 compensation event.

Format of the price list

(From the example given in an Appendix within the TSC3 Guidance Notes)

Entries in the first four columns in the *price list* in section C2.2 are made either by the *Employer* or the tendering contractor.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the 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

1. STAFF RATES

	Charge out rate					Overtime rates		Special rate
	Description	= Total + Profit	Direct	Indirec t	Total = Direct + Indirect	OT 1	OT 2	FFD training rate
		Hourly Rate	Hourly Rate	Hourly Rate	Hourly Rate	Hourly Rate	Hourly Rate	Hourly Rate
1	Senior Specialist Engineer in Leak Detection							
2	Technician in Leak Detection							

NOTES:

- a) The above rates exclude VAT.
- b) No quantities or amounts of work are guaranteed.
- c) The rates and prices are to remain fixed for the first 12 months of the contract period. Thereafter, the rates and prices will be subject to an annual adjustment with 10% of the rates remaining fixed for the contract period and 90% subject to adjustment. The applicable index shall be as per Option X1 of the Contract Data, base date August 2023.
- d) All work under this contract will be carried out by Task Order, as and when the *Employer* requires it, under its sole discretion.
- e) The *Employer* may at any given time request the services of additional personnel as listed in the above Price List.
- f) The **charge out rate** is to include the charges for payment of at least all conditions of service as stipulated in the Basic Conditions of Employment Act and any administration/head office charges related to this contract such as PPE, medicals, etc.
 - The Direct rate is the rate paid to the individual.
 - The Indirect rate is all cost paid to institutions by the Contractor as legislated.
- g) Overtime can only be worked under the following conditions:
 - Overtime will only be paid if the Task Order specifically makes provision for overtime.
 - All overtime must be approved by the relevant Service Manager prior to work commencement.
 - Not more than Ministerial determination per week.
 - Not more than Ministerial determination per day over weekdays.
 - The **Overtime** rate is calculated using the applicable factors (1.5, 1.75 or 2.0), and includes *Contractor's* profit on the normal time, but not the overtime portion, i.e., Charge Out Rate for OT = (Total Rate x OT factor) + (NT Charge Out Rate Total Rate).
- h) Night allowance will be calculated at 10% on the total rate for a two-shift cycle and will only be applicable if the task order specifically provides for it.
- i) Shift allowance will be calculated at 15% on the total rate for a two-shift cycle and will only be applicable if the task order specifically provides for it.
- j) Working days shall be limited to 8 hours per day during non-outage periods.
- k) The FFD training rate is applicable when personnel come for training only.

PART C2: PRICING DATA PAGE 23 C2.2 TSC3/A PRICE LIST

2. OTHER EXPENSES:

Description	Comments	Cost
Air travel, economy return	As per National Treasury guidelines	
Accommodation per day including meals	As per National Treasury guidelines	
Car hire (Group B)	As per National Treasury guidelines	
Travel Time	Maximum up to 6 hours per return trip	

PART C2: PRICING DATA PAGE 24 C2.2 TSC3/A PRICE LIST

Part 3: Scope of Work

Document reference	Title	No of pages
	This cover page	
C3.1	Employer's Service Information	
C3.2	Contractor's Service Information	
	Total number of pages	

C3.1: EMPLOYER'S SERVICE INFORMATION

1 Description of the service

1.1 Executive overview

Perform an acoustic leak detection test (V-Service) for Unit 1 and Unit 2.

Unit 1 is currently incurring Partial Capability Loss Factor (PCLF) of between 10 to 15 MW_e. The cause of this loss appears to be linked to a drop in SG pressure that can either be linked to SG performance and/or an unquantified loss of steam flow due to particular valve/s passing steam directly into the condenser. An acoustic leak detection test (V-Service) is required to identify the source of the leaks and quantity the leaks on each passing valve. Defects will be raised to repair the leaks before a maintenance outage. List of applicable valves will be listed in the scope and Appendix 1.

A V-service was performed at Koeberg in 2008 on Unit 1 and in 2009 on Unit 2. The V-service revealed that Unit 1 and Unit 2 was losing 2848 kW_e and 1885 kW_e respectively from passing valves on various systems. The systems that interface with the condenser are listed in **Error! Reference source not found.**

Table 1 – List of systems interfacing with condenser.

System	Description
ABP	Low pressure heater system
ACO	Feedwater heater drain recovery
AHP	HP heater system
APP	Turbine driven feed pump
ATE	Condensate polishing plant
CAP	Condenser makeup & discharge
CET	Turbine gland steam
CEX	Condenser extraction
CVI	Condenser vacuum
GCT	Turbine bypass system
GPV	Main turbine steam & drains
GSS	Moisture separator reheaters
STR	Steam transformer
SVA	Auxiliary steam distribution
VVP	Main steam system
XCA	Auxiliary boilers

1.2 Employer's requirements for the service`

The service performed by the Contractor includes the following:

- 1.2.1 Leak detection testing using acoustic methods on all the applicable valves on Unit 1 & Unit2. List of valves included as listed in Appendix 1. This activity is made of the following subactivities.
 - Data acquisition
 - Database creation
 - · Leak detection on site
 - Survey final report that quantifies the leaks through each valve and quantifies the consequential loss in generated power in units of kWe or MWe.
- 1.2.2 Decrease of pressure test on GCT-to-condenser Valves (Quantification of lost MWe) is NOT required as Koeberg is a base load station and operates with the valve shut under normal operation in TAVG control mode. This means that the GCT-to-condenser valves are kept shut under spring tension because no air is permitted to the actuator due to 2 solenoids in series being shut under this control mode. Therefore, the quantification of leakage at full power is only required. All the pipework systems referenced in Table 1 of this document shall be subjected to a visual inspection and elevation survey.
- 1.2.3 Final report should contain the following for each valve tested: testing method used, test findings, valve leak rate, etc. In addition, the report should contain a valve repair priority list in order of MWe loss.
- 1.2.4 The final report will be reviewed and approved by Eskom.
- 1.2.5 The contractor must include training and on-job training to allow Eskom to perform the work in future with remote support from the contractor. A quotation must include this item separately to determine cost benefit.

All Work shall be supervised by Eskom.

1.3 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
ACP	Access Control Point
FFD	Fitness for Duty
FME	Foreign Material Exclusion
KNPS	Koeberg Nuclear Power Station
LAN	Local area network
NEC	New Engineering Contract
PTW	Permit To Work
QA	Quality Assurance
QCP	Quality Control Plan
RP	Responsible Person
SAT	Site Acceptance Training
SD&L	Supplier Development and Localisation
SHE	Safety Health and Environment
TSC	Term Services Contract
VAT	Value Added Tax
WC	Work Control

2 Management strategy and start up.

2.1 The Contractor's plan for the service

The *Contractor* is required to prepare and submit a file with all the detailed project plan/programme, for the *Service Manager's* acceptance, which includes all the *Employer's* activities as well as activities of Others, for the scope as specified in the Task Order.

The following will be included in the file:

- Organisation chart.
- List and copies of personnel and certification / qualification records.
- Quality plan, list of applicable documents.
- Specific needs and requirements.
- Safety plan and detailed risk assessments.
- List of procedure to be used with reference.
- Description;
- Description of the activities to be carried out during intervention;
- Work Plan:
- List of procedure to be used with reference;
- List of personnel + certification/qualification records;
- Detailed time schedule of the inspection;
- Equipment and manpower description, list of spare parts;
- Pricing structure;

2.2 Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
General Monthly meetings on contractor performance and	Monthly meetings during first week of each month during non-outage	KOU or	<i>Employer</i> and
feedback	periods	Contractor premises	Contractor
Outages Progress and feedback	Weekly meetings every Monday for the full	KOU	Employer
leeuback	duration of the outages		and
			Contractor
General Monthly meetings on contractor	Monthly meetings during first week of each month	KOU	Employer
performance and	during non-outage	or	and
feedback	back periods		Contractor
Outages Progress and feedback	Weekly meetings every	KOU	Employer
	Monday for the full duration of the outages		and
	_		Contractor

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk reduction meetings	As applicable	KOU	Employer
ge		or	and
		Contractor premises	Contractor
Task-order kick-off	As applicable	KOU	Employer
meeting		or	and
		Contractor premises	Contractor

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 shall be submitted to the *Service Manager* by the person convening the meeting within five days of the meeting.

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

2.3 Contractor's management, supervision and key people

The *contractor* personnel shall fall under the direct supervision of the *Employer's* relevant section that is responsible for the execution of all In-service inspections.

2.4 Training

2.4.1 FFD Programme

The FFD programme objective is to provide reasonable assurance that all *employees* who are required to perform work on the Koeberg plant perform their tasks in a reliable and trustworthy manner, are not under the influence of any substance, or suffers from any health impairment which in any way adversely affects their ability to safely and competently perform their duties. It also gives reasonable assurance that employees (Contractor and Eskom) have been trained/made aware and their technical competence/awareness has been assessed. These requirements are derived from applicable legislation, regulations, Nuclear Licensing requirements, world best practices and Eskom requirements applicable to the Operator of a Nuclear Power Plant.

The requirements differ depending on contractual stipulations and the specific work that the *employee* is required to perform.

As per OHSA the employee's fitness for duty and safety remains the responsibility of the Contractor and not Eskom, unless it is stipulated otherwise in the SHE specifications of the contract.

Meeting FFD requirements is entirely the responsibility of the *Contractor* and all activities described in procedure 335-68 paragraph 5.1 are performed offsite at the cost of the *Contractor* before his/her employees will be registered on the FFD system.

After contract award the *Service Manager / Employer's Representative* completes an Occupational Health Services Person Job Specification in accordance with KGA- 075 and Procedure 335-68 for each contractor employee, which details the occupational conditions of the work activity on site. The specific details when ticked in the job specification inform the induction training the employee needs to complete.

The documentation required and the specific induction training will be indicated on "Application to register for the Koeberg FFD Programme form" (Refer to Procedure 335-68 latest Rev) for each employee. It is the *Contractors* responsibility to timeously book his employees, including subcontractor employees, for entry medical examinations prior to entering the site. Entry medicals form part of Koeberg's mandatory site access FFD requirements.

The *Contractor* ensures that all his *employees*, including *subcontractors*, brought to site comply with the FFD process requirements prior, during and on completion of all activities. In particular the *Contractor* ensures compliance to the nuclear license requirement that all contractor employees classified as radiation workers on completion of their work period on a nuclear site attends an exit medical examination and receive a final whole-body count administered by Koeberg's Radiation Protection Group. For control purposes the last payment of a contract or Task Order is withheld if the tax invoice is not accompanied by written confirmation of completed exit medical examinations and other FFD requirements.

The Contractor and the Service Manager / Employer's Representative ensure that permit holders that no longer require access to the Site follow the FFD exit procedure. Failure to do so shall result in the individual being denied access to the Koeberg site in future, and Contractor may not be considered for further contracts with the Nuclear Operating Unit.

All FFD related enquiries can be emailed to FFDNOU@eskom.co.za

The Generic training are as follows:

Type of training	Duration
Plant Induction Training (PIT)	1 day (if required)
Human Performance Training (HP)	1 day (if required)
Fitness for Duty Testing (security access screening, drug testing, criminal record verification, etc.)	2 days (if required)
Medical Verification	½ day (if required)
Safety Induction	1 hour (prior to start of work)
Radiation Workers Training	1 day for Requal 3 days for Initial

The duration of the Generic training will vary according to the experience of the individual. The average duration that should be scheduled and planned for is a maximum of 8 days. The *Contractor* is to liaise with the *Employer's Representative*, prior to the execution of the works, for an appropriate training period. The above durations are estimates for in person classroom training and can be changed to e-learning with self-study and online assessments of 2 hours.

2.4.2 Technical Training (as applicable)

	Confined space training
	Clean condition training
	Technical FME
	ALARA induction training
	Working at height/Material Handling
	Radworkers training
П	Technical Assessments as required

The *Employer* will only be liable for the training costs of the courses and the labour costs for the course duration. If the *Contractor's* employees fail the course, the *Employer* will not be liable for the cost to repeat the course as well as associated costs that goes with it.

The *Employer* reserves the right to evaluate, test and interview all personnel designated to perform the works before the security arrangements are made.

2.5 Documentation control

Inspection reports are compiled by the Contractor based on the Employers procedures.

All documentation compiled for the *services* are handed to the *Employer* in hard copy and electronic media and is in Microsoft format.

Documentation in electronic media is not considered master documents.

All drawings and documents compiled for the *service* are sized to metric paper size standards (A4, A3 etc.).

2.6 Invoicing and payment

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

The *Contractor* shall address the tax invoice to be submitted directly to the Eskom e-mail address invoiceseskomlocal@eskom.co.za and include on each invoice the following information:

- Name and address of the Contractor and the Service Manager;
- The contract number and title;
- Contractor's VAT registration number;
- The *Employer's VAT* registration number 4740101508;
- Description of service provided for each item invoiced based on the Price List.
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT.
- (add other as required)

Reference to Contract and/or Task instruction number

A descriptive title of the service covered by the Invoice and/or the Contract's assessment number.

A copy of the Assessment Certificate/Signed Task instruction.

Kindly call the Finance Shared Service call centre on 011 800 5060 or e-mail FPSS@eskom.co.za to follow up on any payment queries.

The *Contractor* attaches the detail assessment of all work done for each item in the Price List to each tax invoice showing.

• where a quantity is stated for an item in the Price List or Task Order, an amount calculated by multiplying the quantity which the *Contractor* has completed by the rate.

The Contractor shall provide timesheets for individuals with the monthly assessment.

The *Contractor* shall provide invoices for all "other costs" as per the price list. e.g., Air tickets, accommodation, car hire etc.

2.7 Management of work done by Task Order

- A SAP task order, together with an instruction from the *Employer* to perform a Task, is the *Employer*'s notice to the Contractor to carry out a Task.
- The *Contractor* does not perform any work without a SAP task order accompanying the *Employer*'s instruction to perform a Task.
- The *Contractor* performing work without a SAP task order is done at the risk of non-payment by the *Employer*.
- The *Employer* may not issue a SAP task order after the completion date.
- To enable payment the *Employer*'s Agent and the Contractor signs next to each line of the services on the applicable SAP generated task order.

3 Health and safety, the environment and quality assurance

3.1 Health and safety risk management

The *Contractor* shall comply with the health and safety requirements contained in Annexure A, B and C1 to this Service Information.

3.2 Environmental constraints and management

All consumables shall be discarded in accordance with the *Employer's* procedures and processes.

3.3 Quality assurance requirements

The classification of the service is Q3/L2. *Contractor* complies with the general quality requirements of DSG 318-087 Revision 2.

The Contractor's Quality Management System must be compliant to the requirements of ISO9001:2015.

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(€) Eskom

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

The *Contractor* ensures that any sub-contractor 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 monitors the control between the Contractor and Sub-contractors, as well as the performance of the Contractor's Sub-contractors. 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, if required.

The *Contractor* ensures that his staff and Sub-*contractors* 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 Sub-contractor's personnel), applied for providing the services, is made available to the Service Manager on request.

Execution of activity as per Quality Control Plan (QCPs)

In the event the *Contractor* is requested to execute an activity in accordance with QCP's, the *Contractor* ensure that the QCP typically consists of the following as a minimum and is reviewed and accepted by the *Service Manager* and the *Contractor* prior to the commencement of work.

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

- o Document unique number
- Revision number
- o Page number
- o Provision to incorporate all inspection report numbers.
- o Plant/system worked on

A page which includes:

- High level description of work execution
- o Provision for review and acceptance signatures by the *Contractor*, the *Employer* and the *Employer*'s AIA/QA representative (where applicable).
- o Provision for final release signatures by the *Contractor*, the *Employer* and the *Employer*'s AIA/ QA representative (where applicable).
- o A page which includes a high-level logical sequence of work execution

	Drawing numbers	(€) Eskom
	Abbreviations	Shandré Brown
	Records numbers	
	Procedures numbers	Row.
	Reference document numbers	Procurement Quality Engineering
	Certificate numbers and references	
	The work execution logic and sequence	
	Hold and witness points.	

o

4 Supplier Development, Localisation and Industrialisation

a) Job Opportunities

- The *Contractor* to indicate the number of jobs to be created and retained as a result of this scope.
- The Contractor is encouraged to source resources from surrounding local communities.

Jobs Created	Jobs retained

b) Local Procurement Content

Local Procurement Content" refers to value added in South Africa by South African resources. Where a single contract involves a combination of local and imported goods and/or services, the tender response must be separated into its components as per the Price Schedule included with the tender documents.

Local procurement content is total spending minus the imported component.

Local Procurement Content	Contractor Proposal

c) Skills development

Contractor is required to submit proposals for skills development.

Participating *Contractors* are encouraged to commit skills development via training sessions for Eskom individuals.

Description of training	Tenderer's proposal

d) B-BBEE Requirements

As a minimum, a *Contractor* will be required to maintain or improve their B-BBEE Recognition Level for the duration of the contract.

5. General Constraints on how the Contractor Provides the Works

The *Contractor* carries out the service, taking due cognisance of the following constraints, as applicable.

- No private work is allowed on the site. All instructions are subject to approval by the Service Manager.
- No work may be done before the PTW requirements for the job are in place.
- Work is carried out observing the Employer's "Safety Guidelines for Contractors".
- All work is subject to, at any given time, inspections from the *Employer's* various Groups, i.e., Safety Risk Management, Fire Risk Management, Inspection & Test, Engineering, and Quality Assurance/Quality Control.
- All works is governed by the *Employer's* Work Control process. The *Contractor* (Supervisor) will
 be issued with the work package and the relevant works therein describing the works that must
 be performed and on which equipment works must be performed.
- The Contractor (Supervisor) records all "As Found Conditions", "Corrective Actions", "Measuring & Testing Equipment", "Craftsman" and his signature on the work package. The above information serves as history for the Employer when referring to the works.
- The *Contractor* complies with any relevant labour legislation and apply to the Ministerial Determination for working hours and receives approval prior to the starting date. The *Contractor* is to submit the approval to the *Service Manager* prior to starting date.
- The Contractor supplies Personal Protective Equipment (PPE) for his employees.
- All electrical equipment is checked prior to start of any works by the Employer's electrical maintenance department for safety compliance.
- The response time on all callouts, from the minute the *Contractor* becomes aware of the required services to the minute that the required services arrive at the workstation, does not exceed 2 hours.
- Some of the *Contractor's* personnel are to be qualified Radiation Workers (Training provided by the *Employer*).
- The Contractor may be requested to provide 24-hour service availability (Outage or other specific periods).
- The *Contractor* ensures that comprehensive service records and all related history documentation are kept and made available for perusal by the *Employer* at all times.
- Progress meetings are held with the *Service Manager* or his/her delegate on a daily basis (Outage periods) to discuss any commercial/technical details, or concerns.
- The *Contractor* ensures that any service rendered does not interfere with the *Employer's* scheduled work and should align himself with *Employer's* work control process.
- Should the *Employer* become aware of any changes to the activity schedule (programme of notifications), the *Employer* may issue the *Contractor* with a revised programme.
- The *Contractor* provides a Responsible Person (authorised in terms of Plant Safety Regulations) or have an authorised Responsible Person within 3 months of placement of contract. The prerequisite for a Responsible Person on site is 2 years.
- The *Contractor* operates the Sand blasting, spray painting workshop and Air compressor system in accordance with the Driven Machinery Regulations and other stipulations as contained in the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983), or latest revision.

5.1 Access requirements

- All personnel are in possession of a valid identification document or passport.
- All personnel are security cleared to work at the site by the South African authorities.
- The Contractor allows 14 days for such clearance. Until clearance is obtained the personnel is allowed on site as a visitor, meaning that the visitor is in constant eye contact with one of the security cleared Contractor personnel.
- Security clearance or refusal thereof does not constitute a compensation event.
- On a daily routine all personnel will access and leave the site via the security-controlled access point, where all are subjected to security screening procedures.

5.2 Security check points

- Prior to access to site, the Contractor passes through various security check points, viz.
 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.

5.3 Vehicles and tools/equipment (as applicable)

- All equipment and tools are subject to a security screening before it is allowed on the site.
- All equipment and tools are listed and specified before they are brought on site. This list serves as evidence for removal permits.
- *Employer* transport is not available to *Contractor* employees and vehicles are only allowed on site, if justified to the *Employer* that such a vehicle is necessary to Provide the Works.
- A vehicle access permit, when approved by the *Employer*, is obtained from the *Employer's*Protective Services section.
- The Contractor ensures that no passengers are transported on the back of LDV's (bakkies) or trucks within the boundaries of the Employer's property which starts at the Public Exclusion Barrier (PEB) entrances at the R27 and Duynefontein. Failure to adhere will result in access onto the Employer's property being denied.

5.4 Work in the Radiological Controlled zone (as applicable)

- 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 wholebody 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.

5.5 Permit to Work (PTW) (as applicable)

• All work performed on the site is governed by the *Employer's* PTW system and no work is allowed without this authorisation.

5.6 Emergency Mustering and Accountability and Evacuation

- Due to the nature of the site the *Employer* is required to have full accountability of all personnel at all times.
- The Contractor maintains a current status accountability list of all his personnel on site.
- The accountability list is handed to the *Employer* each time a change occurs.
- The Contractor ensures that his personnel take full responsibility of this requirement and that its personnel are fully knowledgeable with the mustering requirements as detailed in procedure KAA 611.
- The *Contractor* maintains at all times a harmonious relationship with and co-operates with the *Employer* and all its suppliers and sub-suppliers or their employees who may be involved.
- The Contractor employs in and about the Provision of the Works only such persons that are careful, competent and efficient in their several trades and callings and the Employer reserves the right to object to and require the Contractor to remove from the works forthwith any person employed by the Contractor in or about the Provision of the Works who, in the opinion of the Employer, misconduct's himself or is incompetent or negligent in the proper performance of his duties and such person is not again employed for the works without the written permission of the Employer.

5.7 Qualification of key personnel

 The Contractor ensures that all key personnel assigned to the service 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 personnel members also meet such requirements as the National Nuclear Regulator may stipulate from time to time. Key personnel requirements elaborated in section 13.

5.8 Dealings with authorities and obtaining permits.

- The Parties are separately responsible for all dealings with government and local authorities relating to its' role in terms of the contract and obtains and maintains at its' own expense such permits; licenses and authorisations as may be required in this regard.
- It is expressly agreed that the *Employer* is responsible for dealing with the National Nuclear Regulator.

5.9 Use of the *Employer's* tools and equipment (as applicable)

For the purpose of expediting the works, the Employer may make available facilities or services
to the Contractor at no cost to the Contractor. The Contractor does not receive any
reimbursement or make any charge relative to the beneficial use of the Employer's facilities or
services.

5.10 Special equipment for irradiated areas (as applicable)

- Any special equipment for work in radiological areas are furnished by the *Employer* at no cost to the *Contractor* except if specified otherwise in the Scope or unless otherwise agreed by the Parties.
- Any additional special equipment furnished by the Contractor which in the Employer's opinion cannot be recovered (whether decontaminated or not), is charged to the Employer at its replacement value which value is determined by mutual agreement at the time when the equipment is furnished by the Contractor.

• The *Employer* and the *Contractor*, by mutual agreement decide whether or not any such equipment can still be used, notwithstanding that it has been contaminated.

5.11 Control of radioactive equipment, plant or material (as applicable)

- Prior to equipment, plant or materials that is to be used in the *Employer's* site radiological control zones, being brought onto the *Employer's* site, the *Contractor*.
- obtains the *Employer's* acceptance of a Radiological Surveillance Report, provided by the *Contractor*, which details the radiological conditions/cleanliness of the equipment, plant or materials in terms of dose rate and contamination level (fixed/loose); and
- makes available such equipment, plant or materials for scrutiny by the *Employer's* RP Group, when first unpacked/unfolded/uncontained from its original shipment packing.

5.12 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 Subcontractors
 makes any public statements or release to any third party any information concerning the
 service without first obtaining the written approval of the Employer, which is not unreasonably
 withheld. Requests to release information is co-ordinated through the Service Manager.

5.13 General

While the *Contractor* will perform its duties with due diligence and take all necessary care, there are certain exemptions to the applicability of the penalty clause.

- Where delays are experienced as a result of others, the Contractor will not be penalised.
- When spares unavailability causes unavailability of a system, the *Contractor* will not be penalised, provided that such unavailability was communicated timeously.
- When failures outside of the Contractor's control (e.g., operator error, loss of electrical supplies, loss of cooling or deterioration of cooling outside recommended operating temperatures, fire, flood, catastrophic failure) the Contractor will not be penalised
- Should ageing of equipment result in more frequent failures, the targets will be adjusted accordingly. This adjustment will be done after each 3 (three) monthly performance evaluation.

6. Property affected by the service.

6.1 Location of the site

The site is located at Koeberg Operating Unit 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 Operating Unit.

6.2 Security check points

Prior to access to site, there are two Public Exclusion Barrier (PEB) security check points, viz. at the entrance from the R27 and at the entrance from Duynefontein. Security access is through

Access Control Points (ACP) 1 and 2.

6.3 Life Saving Rules

Document Identifier 240-62196227. The *Employer* takes a ZERO TOLERANCE stance to the violation of these rules. Refer document for Info-Fitness for Duty Requirements Rev 3.

6.4 Health and safety

The *Contractor* shall at all times comply with the health and safety requirements prescribed by law as it may apply to the *services*.

7. Reference

Reference Nr	Title
DSG317-094-Rev 4	Specifications for chemical products, material used at KNPS
DSG-318-087 Rev 2	Quality requirements for the procurement of assets, products and services
240-1289988974	Instruction Number 1 of 2018 – Incorporating Cataloguing into the Procurement Environment
KAA611-Rev 5	Emergency mustering
KAA664 Rev 3	Issuing a construction status certificate /safety clearance certificate
KAA667 Rev 6	Processing a permit to work
KAA721 Rev 6	Planning, scheduling and execution of production activities
KAA777 Rev 4	Process for access to KNPS
KAA780 Rev 6	Systematic approach to training
KBA0000G001000	Index
KBA1222F00001	Equipment specifications
KFA002-Rev 9	PE Work plan
KGA073 –Rev 2	She specification guideline
KLA023 -Rev 3a	Outage preparation milestone checklist
KSA011 -Rev 11	The requirements for controlled documents
KSA069 -Rev 4	Foreign material exclusion
KSA119 –Rev 2	Management and control of supplemental workers
KSM031 -Rev 0	Scaffolding program
KTA001 -Rev 7	Training and qualification requirements
MANDIR072 -Rev 6	Koeberg management directive
SATS 1286_2011	SABS Standard Division Technical specs
GGG1299 Rev 0	Guide for technical writing
240-115852755	Inspection Maintenance Testing Plan for Unit 1
240-136828967	Inspection Maintenance Testing Plan for Unit 1

Appendix 1



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7441 Cape town South Africa

PO Box X10

Melkbosstrand

Kernkrag

www.eskom.co.za To the Contractor Tel: Address Fax: Attention Date: E mail Ref: Dear Sirs, Contract title Number: Contract action Further to our consultations dated [] about the content of this Task Order and in terms of clause X19.1(1) and X19.1(2) in secondary Option X19 of the above contract, I hereby instruct the Contractor to carry out the below stated work as a Task within the service. Task Order No. service Detailed description of the work in the Task: Starting date for the Task Task Completion Date A priced list of items of work in the Task in which items are taken from the Price List is attached Total of Prices for items of work taken from the Price List per the attached priced list is: R Total of Prices for items of work not in the Price List (details attached) is: Total of the Prices for this Task Order Yours faithfully, Signature (Service Manager) Name Distribution: To the Employers Tel: agent

Signature (Employers Agent)

Name

Appendix 2

Functional Location	Description	Equipment Type	Template
1ABP019VL	VALVE PNEU CTRL EM DRNS / COND 301RE	Pneumatic Act Control Valve 4"	AIR OPERATED CONTROL VALVES
1ABP020VL	VALVE - RELIEF BY-PASS 019VL	Relief Valve 2/3", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1ABP021VL	VALVE PNEU CTRL EM DRNS / COND 302RE	Pneumatic Act Control Valve 4"	AIR OPERATED CONTROL VALVES
1ABP022VL	VALVE - RELIEF BY-PASS 021VL	Relief Valve 2/3", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1ABP023VL	VALVE PNEU CTRL EM DRNS / COND 201RE	Pneumatic Act Control Valve 8"	AIR OPERATED CONTROL VALVES
1ABP024VL	VALVE - RELIEF BY-PASS 023VL	Relief Valve 3/4", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1ABP025VL	VALVE PNEU CTRL EM DRNS / COND 202RE	Pneumatic Act Control Valve 8"	AIR OPERATED CONTROL VALVES
1ABP026VL	VALVE - RELIEF BYPASS 025VL	Relief Valve 3/4", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1ABP031VL	CTRL V/V,401RE EM DRN TO AHP003BA PNEU A	Pneumatic Act Control Valve 6"	AIR OPERATED CONTROL VALVES
1ABP032VL	VALVE - RELIEF BY-PASS 031VL	Relief Valve 2/3", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1ABP033VL	CTRL V/V 402RE EM DRAINS TO AHP 003BA	Pneumatic Act Control Valve 6"	AIR OPERATED CONTROL VALVES
1ABP034VL	VALVE - RELIEF BY-PASS 033VL	Relief Valve 2/3", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1ABP035VL	V/V MTR OPTD BLED STM LNS DRN 201/202RE	Motor Operated Valve 4"	MOTOR ACTUATED VALVES (MOV)
1ABP036VL	V/V MTR OPTD BLED STM LNS DRN 201/202RE	Motor Operated Valve 4"	MOTOR ACTUATED VALVES (MOV)
1ACO013VL	V/V PNEU 001PO MIN/F TO DRNS RECOVY TANK	Pneumatic Operated Gate Valve 6"	AIR OPERATED ISOLATION VALVES
1ACO015VL	V/V PNEU 002PO MIN/F TO DRNS RECOVY TNK	Pneumatic Operated Gate Valve 6"	AIR OPERATED ISOLATION VALVES
1ACO017VL	V/V PNEU 001BA EM DRNS F CTRL 1AHP F/TNK	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
1ACO018VL	V/V PNEU 001BA EM DRNS F CTRL 1AHP F/TNK	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
1-AET-001-PU	STEAM TRAP, CONDENSATE DRAIN, TRAP		TRAP STEAM 501 LINE DISCHARGE
1-AET-002-PU	STEAM TRAP, CONDENSATE DRAIN, TRAP		TRAP STEAM 501 LINE DISCHARGE
1-AET-003-PU	STEAM TRAP, CONDENSATE DRAIN, TRAP		TRAP STEAM 501 LINE DISCHARGE
1-AET-004-PU	STEAM TRAP, CONDENSATE DRAIN,		TRAP STEAM 501 LINE DISCHARGE

Functional Location	Description	Equipment Type	Template
	TRAP		
1-AET-005-PU	STEAM TRAP, CONDENSATE DRAIN, TRAP		TRAP STEAM 501 LINE DISCHARGE
1-AET-006-PU			TRAP STEAM 501 LINE DISCHARGE
1AHP011VL	VALVE - MOTOR OPERATED BYPASSING HEATERS	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
1AHP012VL	VALVE PNEU CTRLD ISOL RECIRCULATION LN	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
1AHP016VL	VALVE PNEU CTRLD ISOL EM DRNS TANK 003BA	Pneumatic Control Valve 6"	AIR OPERATED CONTROL VALVES
1AHP017VL	VALVE - RELIEF DRAINS LINE TO 003BA	Relief Valve 3/4", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1AHP022VL	VALVE PNEU CTRLD ISOL EM DRNS TO 003BA	Pneumatic Control Valve 6"	AIR OPERATED CONTROL VALVES
1AHP023VL	VALVE RELIEF BYP 022VL EM DRNS	Relief Valve, in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1AHP025VL	VALVE PNEU CTRLD ISOL EM DRNS TO 003BA	Pneumatic Control Valve 6"	AIR OPERATED CONTROL VALVES
1AHP026VL	VALVE RLF BYPNG 025VL EM DRNS TO 003BA	Relief Valve 3/4", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1AHP029VL	VALVE PNEUMATIC CTRLD ISOL EM DRNS 003BA	Pneumatic Control Valve 6"	AIR OPERATED CONTROL VALVES
1AHP030VL	VALVE RLF BYPNG 029VL EM DRNS TO 003BA	Relief Valve 3/4", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
1AHP296VL	VALVE - LINE 012TY TO CEX	Manual Gate Valve 8"	GATE VALVES
1AHP297VL	VALVE - BY PASS FOR 296VL	Manual Gate Valve 1"	GLOBE VALVES
1APP001PU	TRAP STM TURB001TC LP STM INL&DRN TO AHP	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
1APP003PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
1APP004PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
1APP004VV	VALVE - MANUAL DISCHARGE 001TC	Manual Butterfly Valve 1500	OTHER TASKS APPLIED
1APP007VL	VALVE - PNEUMATIC ABP BY PASS OF 001PO	Pneumatic Operated Valve	AIR OPERATED ISOLATION VALVES
1APP009VL	VALVE PNEU 001PO DSCH TO AHP SYSTEM		AIR OPERATED ISOLATION VALVES
1APP009VV	VALVE - MANUAL DISCHARGE 002TC	Manual Butterfly Valve 1500	OTHER TASKS APPLIED
1APP017VL	VALVE - PNEUMATIC BY PASS 002PO	Pneumatic Operated Valve	AIR OPERATED ISOLATION VALVES
1APP019VL	VALVE PNEUMATIC 002PO DSCH TO AHP	Pneumatic Operated Valve	AIR OPERATED ISOLATION VALVES
1ASG002PU	STEAM TRAP, CONDENSATE DRAIN, TRAP		STEAM TRAP - PURGE ON TURBINE EXHAUST
1ASG003PU	STEAM TRAP, CONDENSATE DRAIN, TRAP		STEAM TRAP TO DRAINS FLASH TANK

Functional Location	Description	Equipment Type	Template
1ASG005PU	STEAM TRAP, CONDENSATE DRAIN, TRAP		STEAM TRAP FROM FLASH TANK TO DRAINS
1ATE901VL	VALVE MOTORISED BUTTERFLY INLET 901PO	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED VALVES (MOV)
1ATE902VL	VALVE NON- RETURN DISCHARGE 901PO	Duo Check Valve 18"	CHECK VALVES
1ATE905VL	VALVE PNEU CTRLD RECIRC. LN 901PO	Pneumatic Actuated Valve 6"	AIR OPERATED CONTROL VALVES
1ATE907VL	VALVE MOTORISED B-FLY INL ISOLN 902PO	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED VALVES (MOV)
1ATE908VL	VALVE CHECK NON- RETURN DISCHARGE 902PO	Duo Check Valve 18"	CHECK VALVES
1ATE911VL	VALVE PNEUMATIC CONTROLLED RECIRC 902PO	Pneumatic Actuated Valve 6"	AIR OPERATED CONTROL VALVES
1ATE913VL	VALVE MOTORISED BUTTERFLY	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED VALVES (MOV)
1ATE914VL	VALVE NON- RETURN DISCHARGE 903PO	Duo Check Valve 18"	CHECK VALVES
1ATE917VL	VALVE PNEU CONTROL RECIRC LINE 903PO	Pneumatic Actuated Valve 6"	AIR OPERATED CONTROL VALVES
1CAP002VL	VALVE PNEUMATIC CTRL OF COND LVL	Pneumatic Control Valve 3"	AIR OPERATED CONTROL VALVES
1CAP003VL	VALVE ISOLN COND NORMAL FIL MU	Manual Valve 6"	GATE VALVES
1CAP004VL	VALVE MOTOR OPTD COND QUICK FIL MU	Motor Operated Valve 6"	MOTOR ACTUATED VALVES (MOV)
1CAP005VL	VALVE ISOLN MU WATER TO HTG BOX	Manual Valve 6"	GATE VALVES
1CET003VV	VALVE PNEU CTRLD MAIN STM SUPL TO 001BA	Control Valve 6x4"	AIR OPERATED CONTROL VALVES
1CET012VV	VALVE PRESS REG CTRL GPV STM SUPL 001BA	Control Valve 6"	AIR OPERATED CONTROL VALVES
1CEX001VL	VALVE MTR OPTD NON RTN SUC ISOLN 001PO	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED VALVES (MOV)
1CEX005VL	DSCH M/F LN 001PO	Pneumatic Operated Gate Valve 8"	AIR OPERATED ISOLATION VALVES
1CEX007VL	VALVE MOTOR OPERATED SUCTION ISOLN 002PO	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED VALVES (MOV)
1CEX011VL	VALVE PNEU CTRLD DSCH ISOLN M/F LN 002PO	Pneumatic Operated Gate Valve 8"	AIR OPERATED ISOLATION VALVES
1CEX013VL	VALVE MOTOR OPERATED SUCTION ISOLN 003PO	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED VALVES (MOV)
1CEX014VL	VALVE - NON- RETURN DISCHARGE 003PO	Check Valve 20"	CHECK VALVES
1CEX017VL	VALVE PNEU CTRLD DSCH ISOLN M/F LN 003PO	Pneumatic Operated Gate Valve 8"	AIR OPERATED ISOLATION VALVES
1CVI001VV	VALVE ISOLATION STEAM INLET TO 001EJ	Manual Valve 4"	GATE VALVES
1CVI002VV	VALVE ISOLATION STEAM INLET TO 002EJ	Manual Valve 4"	GATE VALVES
1CVI003VV	VALVE MOTOR DRIVEN 003EJ	Motor Operated Globe Valve 2"	MOTOR ACTUATED VALVES (MOV)
1CVI004VV	VALVE SHUT-OFF REBOILING SVA STEAM INLET	Manual Valve 8"	GATE VALVES

Functional Location	Description	Equipment Type	Template
1CVI005VA	VALVE ISOLATING AIR	Manual Butterfly Valve 24"	BUTTERFLY VALVES
ICVIOUSVA	SUCTION 003EJ	ivialitial Butterny valve 24	BOTTERFET VALVES
1CVI053VL	VALVE INLET TO 001CS MANUAL CONTROL	Manual Control Valve 6"	FLOW REGULATION VALVES
1CVI059VL	VALVE ISOLATING INLET TO 001CS	Manual Valve 6"	GATE VALVES
1CVI060VL	VALVE BY-PASS MOUNTED ON 059VL	Manual Valve 3/4"	GLOBE VALVES
1GCT033VV	VALVE - ISOLATION DRAIN LINE 003TY	Manual Globe Valve 2"	GLOBE VALVES
1GCT034VV	VALVE - ISOLATION DRAIN LINE 002TY	Manual Globe Valve 2"	GLOBE VALVES
1GCT035VV	VALVE - ISOLATION DRAIN LINE 006TY	Manual Globe Valve 2"	GLOBE VALVES
1GCT036VV	VALVE - VALVE ISOLATION DRAIN LINE 005TY	Manual Globe Valve 2"	GLOBE VALVES
1GCT100VV	VALVE - MOTOR OPERATED STEAM COLLECTOR	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
1GCT101VV	VALVE - MOTOR OPERATED STEAM COLLECTOR	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
1GCT102VV	VALVE - MOTOR OPERATED STEAM COLLECTOR	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
1GCT103VV	VALVE - MOTOR OPERATED STEAM COLLECTOR	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
1GCT104VV	VALVE - BYPASS VALVE 100VV	Manual Valve 1 1/2"	GLOBE VALVES
1GCT105VV	VALVE - BYPASS VALVE 101VV	Manual Valve 1 1/2"	GLOBE VALVES
1GCT106VV	VALVE - BYPASS VALVE 102VV	Manual Valve 1 1/2"	GLOBE VALVES
1GCT107VV	VALVE - BYPASS VALVE 103VV	Manual Valve 1 1/2"	GLOBE VALVES
1GCT108VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
1GCT109VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
1GCT110VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT111VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT112VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT113VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT114VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT115VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT116VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT117VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT118VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT119VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT120VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT121VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES

Functional Location	Description	Equipment Type	Template
1GCT122VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT123VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
1GCT125VL	VALVE PNEU CTRLD DES/H WATER INTAKE	Pneumatic Valve 3"	AIR OPERATED CONTROL VALVES
1GCT126VL	VALVE PNEU CTRLD DES/H WATER INTAKE	Pneumatic Valve 3"	AIR OPERATED CONTROL VALVES
1GCT127VL	VALVE PNEU CTRLD DES/H WATER WTR INTAKE	Pneumatic Valve 4"	AIR OPERATED CONTROL VALVES
1GCT131VV	VALVE PNEU CTRLD DSCH TO ATM RCP001GV	Regulating Valve, globe (linear), Plain carbon steel, Serie 600, Seat, Stellite, Plug, Stellite, Butt weld, Nuclear valves in Safety Class B, 0150, Reduced passage valve	AIR OPERATED CONTROL VALVES
1GCT132VV	VALVE PNEU CTRLD DSCH TO ATM RCP002GV	Regulating Valve, globe (linear), Plain carbon steel, Serie 600, Seat, Stellite, Plug, Stellite, Butt weld, Nuclear valves in Safety Class B, 0150, Reduced passage valve	AIR OPERATED CONTROL VALVES
1GCT133VV	VALVE PNEU CTRLD DSCH TO ATM RCP003GV	Regulating Valve, globe (linear), Plain carbon steel, Serie 600, Seat, Stellite, Plug, Stellite, Butt weld, Nuclear valves in Safety Class B, 0150, Reduced passage valve	AIR OPERATED CONTROL VALVES
1GPV051VV	VALVE DRAIN 001BA OUTLET TO AHP003BA	Motorised Globe Valve DN100	MOTOR ACTUATED VALVES (MOV)
1GPV052VV	VALVE DRAIN FROM MSV AND GV TO AHP003BA	Motorised Globe Valve DN100	MOTOR ACTUATED VALVES (MOV)
1GPV053VV	VALVE DRN F CTRL 001BA OUT TO AHP003BA		MOTOR ACTUATED VALVES (MOV)
1GPV054VV	V/V DRN 031-036VV&041- 046VV TO AHP003BA	Motorised Globe Valve DN50	MOTOR ACTUATED VALVES (MOV)
1GPV055VV	V/V DRN HP CSG&SEPTRS RHTRS TO AHP003BA	Motorised Gate Valve DN200	MOTOR ACTUATED VALVES (MOV)
1GSS005VV	VALVE MTR OPTD MAIN STEAM LN DRNS ISOLN	Motorised Globe Valve DN25	MOTOR ACTUATED VALVES (MOV)
1GSS006VV	VALVE MOTOR OPERATED DRAINS ISOLATION	Motorised Globe Valve DN25	MOTOR ACTUATED VALVES (MOV)
1GSS106VL	VALVE FLOW CONTROL EMERGENCY DRAINS	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
1GSS107VL	VALVE FLOW CTRL EM DRNS TO 101BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
1GSS206VL	VALVE FLOW CONTROL EMERGENCY DRAINS	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
1GSS207VL	VALVE FLOW CTRL EM DRNS 201BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
1GSS306VL	VALVE PNEUMATIC FLOW CONTROL TO AHP003BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
1GSS307VL	VALVE FLOW CTRL EM DRNS 301BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
1GSS406VL	VALVE FLOW CONTROL EMERGENCY DRAINS	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
1GSS407VL	VALVE FLOW CONTROL 401BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
1STR002VD	VALVE PNEU CTRLLED FROM SER TO TNK 001BA	Pneumatic Control Valve 2"	AIR OPERATED ISOLATION VALVES
1VVP001PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
1VVP002PU		(Steam Trap, Condensate Drain, Trap	STEAM TRAPS
	002BA		

Functional Location	Description	Equipment Type	Template
1VVP003PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
1VVP004PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
1VVP163VL	VALVE PNEU FLOW CTRL DRNS TANK 002BA	Valves, Flow Regulating, Globe (linear)	AIR OPERATED ISOLATION VALVES
1VVP165VL	VALVE-163VL BYPASS ISOLATION	Valves, Isolation, Globe	GLOBE VALVES
1VVP166VL	VALVE-163VL BYPASS MANUAL FLOW REG	Manual Globe Valve 1"	FLOW REGULATION VALVES
1VVP185VL	VALVE-003PU BYPASS ISOLATION	Valves, Flow Regulating, Globe (linear)	GLOBE VALVES
1VVP186VL	VALVE-003PU BYPASS MANUAL FLOW REG	Manual Globe Valve 1"	FLOW REGULATION VALVES
1VVP189VL	VALVE-004PU BYPASS ISOLATION	Valves, Flow Regulating, Globe (linear)	GLOBE VALVES
1VVP190VL	VALVE-004PU BYPASS MANUAL FLOW REG	Manual Globe Valve 1"	FLOW REGULATION VALVES
1VVP274VL	VALVE MANUAL PNEUMATIC CONTROL	Valves, Flow Regulating, Globe (linear)	AIR OPERATED CONTROL VALVES
2ABP019VL	VALVE PNEU CTRL EM DRNS / COND 301RE	Pneumatic Act Control Valve 4"	AIR OPERATED CONTROL VALVES
2ABP020VL	VALVE - RELIEF BY-PASS 019VL	Relief Valve, in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2ABP021VL	VALVE PNEU CTRL EM DRNS / COND 302RE	Pneumatic Act Control Valve 4"	AIR OPERATED CONTROL VALVES
2ABP022VL	VALVE - RELIEF BY-PASS 021VL	Relief Valve, in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2ABP023VL	VALVE PNEU CTRL EM DRNS / COND 201RE	Pneumatic Act Control Valve 8"	AIR OPERATED CONTROL VALVES
2ABP024VL	VALVE - RELIEF BY-PASS 023VL	Relief Valve, in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2ABP025VL	VALVE PNEU CTRL EM DRNS / COND 202RE	Pneumatic Act Control Valve 8"	AIR OPERATED CONTROL VALVES
2ABP026VL	VALVE - RELIEF BYPASS 025VL	Relief Valve, in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2ABP031VL	CONTROL VALVE,401RE EMERGENCY DRAIN TO A	Pneumatic Act Control Valve 5"	AIR OPERATED CONTROL VALVES
2ABP032VL	VALVE - RELIEF BY-PASS 031VL	Relief Valve, in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2ABP033VL	CONTROL VALVE,402RE EM DRNS TO AHP003BA	Pneumatic Act Control Valve 6"	AIR OPERATED CONTROL VALVES
2ABP034VL	VALVE - RELIEF BY-PASS 033VL	Relief Valve, in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2ABP035VL	V/V MTR OPTD BLED STM LNS DRN 201/202RE	Motor Operated Valve 4"	MOTOR ACTUATED VALVES (MOV)
2ABP036VL	V/V MTR OPTD BLED STM LNS DRN 201/202RE	Motor Operated Valve 4"	MOTOR ACTUATED VALVES (MOV)
2ACO013VL	V/V PNEU 001PO MIN/F TO DRNS RECOVY TNK	Pneumatic Operated Gate Valve 6"	AIR OPERATED ISOLATION VALVES
2ACO015VL	V/V PNEU 002PO MIN/F TO DRNS RECOVY TNK	Pneumatic Operated Gate Valve 6"	AIR OPERATED ISOLATION VALVES

Functional Location	Description	Equipment Type	Template
2ACO017VL	V/V PNEU 001BA EM DRNS F CTRL 2AHP F/TNK	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
2ACO018VL	V/V PNEU 001BA EM DRNS F CTRL 2AHP F/TNK	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
2AET001PU	STEAM TRAP, CONDENSATE DRAIN,	-	TRAP STEAM 501 LINE DISCHARGE
2AET002PU	TRAP STEAM TRAP, CONDENSATE DRAIN, TRAP	-	TRAP STEAM 501 LINE DISCHARGE
2AET003PU	STEAM TRAP, CONDENSATE DRAIN,	-	TRAP STEAM 501 LINE DISCHARGE
2AET004PU	TRAP STEAM TRAP, CONDENSATE DRAIN, TRAP	-	TRAP STEAM 501 LINE DISCHARGE
<u>2AET005PU</u>	STEAM TRAP, CONDENSATE DRAIN, TRAP	-	TRAP STEAM 501 LINE DISCHARGE
<u>2AET006PU</u>	STEAM TRAP, CONDENSATE DRAIN, TRAP	-	TRAP STEAM 501 LINE DISCHARGE
2AHP011VL	VALVE - MOTOR OPERATED BYPASSING HEATERS	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
2AHP012VL	VALVE PNEU CTRLD ISOL RECIRCULATION LN	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
2AHP016VL	VALVE PNEU CTRLD ISOL EM DRNS TANK 003BA	Pneumatic Control Valve 6"	AIR OPERATED CONTROL VALVES
2AHP017VL	VALVE - RELIEF DRAINS LINE TO 003BA	Relief Valve 3/4", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2AHP022VL	VALVE PNEU CTRLD ISOL EM DRNS TO 003BA	Pneumatic Control Valve 6"	AIR OPERATED CONTROL VALVES
2AHP023VL	VALVE RELIEF BYP 022VL EM DRNS	Relief Valve, in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2AHP025VL	VALVE PNEU CTRLD ISOL EM DRNS TO 003BA	Pneumatic Control Valve 6"	AIR OPERATED CONTROL VALVES
2AHP026VL	VALVE RLF BYPNG 025VL EM DRNS TO 003BA	Relief Valve 3/4", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2AHP029VL	VALVE PNEUMATIC CTRLD ISOL EM DRNS 003BA	Pneumatic Control Valve 6"	AIR OPERATED CONTROL VALVES
2AHP030VL	VALVE RLF BYPNG 029VL EM DRNS TO 003BA	Relief Valve 3/4", in Mild Environmental conditions, with Slow Corrosive Fluid, No Crystal Formation, with Hard Seat	SAFETY RELIEF VALVES
2AHP296VL	VALVE - LINE 012TY TO CEX	Manual Gate Valve 8"	GATE VALVES
2AHP297VL	VALVE - BY PASS FOR 296VL	Manual Gate Valve 1"	GLOBE VALVES
2APP001PU	TRAP STM TURB001TC LP STM INL&DRN TO AHP	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
2APP004VV	VALVE - MANUAL DISCHARGE 001TC	Manual Butterfly Valve 1500	OTHER TASKS APPLIED
2APP007VL	VALVE - PNEUMATIC ABP BY PASS OF 001PO	Pneumatic Operated Valve	AIR OPERATED ISOLATION VALVES
2APP009VL	VALVE PNEU 001PO DSCH TO AHP SYSTEM	Pneumatic Operated Valve	AIR OPERATED ISOLATION VALVES

Functional Location	Description	Equipment Type	Template
2APP009VV	VALVE - MANUAL	Manual Butterfly Valve 1500	OTHER TASKS
	DISCHARGE 002TC	manual Buttorny vario 1000	APPLIED
2APP017VL	VALVE - PNEUMATIC BY	Pneumatic Operated Valve	AIR OPERATED
	PASS 002PO		ISOLATION VALVES
2APP019VL	VALVE PNEUMATIC 002PO	Pneumatic Operated Valve	AIR OPERATED
	DSCH TO AHP	•	ISOLATION VALVES
2ATE901VL	VALVE MOTORISED	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED
	BUTTERFLY	•	VALVES (MOV)
2ATE902VL	VALVE NON RETURN	Duo Check Valve 18"	CHECK VALVES
	DISCHARGE 901PO		
2ATE905VL	VALVE PNEU CTRLD	Pneumatic Actuated Valve 6"	AIR OPERATED
	RECIRC. LN 901PO		CONTROL VALVES
2ATE907VL	VALVE MOTORISED	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED
	BUTTERFLY		VALVES (MOV)
2ATE908VL	VALVE CHECK NON	Duo Check Valve 18"	CHECK VALVES
	RETURN DISCHARGE		
0 A TE 04 4 V //	902PO	Discouranties Antonomical Makes Cili	AID ODED ATED
2ATE911VL	VALVE PNEUMATIC	Pneumatic Actuated Valve 6"	AIR OPERATED
	CONTROLLED RECIRC 902PO		CONTROL VALVES
2ATE913VL	VALVE MOTORISED	Motor Operated Butterfly Valve 22"	MOTOR ACTUATED
ZAIESISVL	BUTTERFLY	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED VALVES (MOV)
2ATE914VL	VALVE NON RETURN	Duo Check Valve 18"	CHECK VALVES
ZA 1 L3 14 V L	DISCHARGE 903PO	Duo Orieuk valve 10	OFFICIAL VALVES
2ATE917VL	VALVE PNEU CONTROL	Pneumatic Actuated Valve 6"	AIR OPERATED
ZATEOTTE	RECIRC LINE 905PO	Thoundated valve o	CONTROL VALVES
2CAP002VL	VALVE PNEUMATIC CTRL	Pneumatic Control Valve 3"	AIR OPERATED
	OF COND LVL		CONTROL VALVES
2CAP003VL	VALVE ISOLN COND	Manual Valve 6"	GATE VALVES
	NORMAL FIL MU		
2CAP004VL	VALVE MOTOR OPTD	Motor Operated Valve 6"	MOTOR ACTUATED
	COND QUICK FIL MU		VALVES (MOV)
2CAP005VL	VALVE ISOLN MU WATER	Manual Valve 6"	GATE VALVES
	TO HTG BOX		
2CET003VV	VALVE PNEU CTRLD MAIN	Control Valve 6x4"	AIR OPERATED
	STM SUPL TO 001BA		CONTROL VALVES
2CET012VV	VALVE PRESS REG CTRL	Control Valve 6"	AIR OPERATED
	GPV STM SUPL 001BA		CONTROL VALVES
2CEX001VL	VALVE MTR OPTD NON	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED
	RTN SUC ISOLN 001PO		VALVES (MOV)
2CEX005VL		Pneumatic Operated Gate Valve 8"	AIR OPERATED
	DSCH M/F LN 001PO		ISOLATION VALVES
2CEX007VL	VALVE MOTOR OPERATED	Motor Operated Butterfly Valve 32"	MOTOR ACTUATED
	SUCTION ISOLN 002PO		VALVES (MOV)
20EV044\#		Decumptio Operated Opto Value Of	` ´
2CEX011VL		Pneumatic Operated Gate Valve 8"	AIR OPERATED
	ISOLN M/F LN 002PO		ISOLATION VALVES
2CEX013VL		Motor Operated Butterfly Valve 32"	MOTOR ACTUATED
	SUCTION ISOLN 003PO		VALVES (MOV)
2CEX014VL	VALVE - NON RETURN	Check Valve 20"	CHECK VALVES
ZOLAUITVL	DISCHARGE 003PO	OHOOK VAIVO ZO	OHEOR VALVEO
2CEX017VL		Pneumatic Operated Gate Valve 8"	AIR OPERATED
	ISOLN M/F LN 003PO		ISOLATION VALVES
001//00/11/21		NA 1371 All	
2CVI001VV	VALVE ISOLATION STEAM	Manual Valve 4"	GATE VALVES
201/10021/1/	INLET TO 001EJ	Manual Value 4"	CATE VALVEO
2CVI002VV	VALVE ISOLATION STEAM	Manual Valve 4"	GATE VALVES
3C/1003///	INLET TO 002EJ	Motor Operated Clabs Valve 2"	MOTOR ACTUATER
2CVI003VV	VALVE MOTOR DRIVEN 003EJ	Motor Operated Globe Valve 2"	MOTOR ACTUATED VALVES (MOV)
2CVI004VV	VALVE SHUT-OFF	Manual Valve 8"	GATE VALVES
20 V 1004 V V	REBOILING S.V.A STEAM	manual valve o	GATE VALVES
	INL		

Functional Location	Description	Equipment Type	Template
2CVI005VA	VALVE ISOLATING AIR SUCTION 003EJ	Manual Butterfly Valve 24"	BUTTERFLY VALVES
2CVI053VL	VALVE INLET TO 001CS MANUAL CONTROL	Manual Control Valve 6"	FLOW REGULATION VALVES
2CVI059VL	VALVE ISOLATING INLET TO 001CS	Manual Valve 6"	GATE VALVES
2CVI060VL	VALVE BY-PASS MOUNTED ON 059VL	Manual Valve 3/4"	GLOBE VALVES
2GCT033VV	VALVE - ISOLATION DRAIN LINE 003TY	Manual Globe Valve 2"	GLOBE VALVES
2GCT034VV	VALVE - ISOLATION DRAIN LINE 002TY	Manual Globe Valve 2"	GLOBE VALVES
2GCT035VV	VALVE - ISOLATION DRAIN LINE 006TY	Manual Globe Valve 2"	GLOBE VALVES
2GCT036VV	VALVE - VALVE ISOLATION DRAIN LINE 005TY	Manual Globe Valve 2"	GLOBE VALVES
2GCT100VV	VALVE - MOTOR OPERATED STEAM COLLECTOR	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
2GCT101VV	VALVE - MOTOR OPERATED STEAM COLLECTOR	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
2GCT102VV	VALVE - MOTOR OPERATED STEAM COLLECTOR	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
2GCT103VV	VALVE - MOTOR OPERATED STEAM COLLECTOR	Motor Operated Valve 20"	MOTOR ACTUATED VALVES (MOV)
2GCT104VV	VALVE - BYPASS VALVE 100VV	Manual Valve 1 1/2"	GLOBE VALVES
2GCT105VV	VALVE - BYPASS VALVE 101VV	Manual Valve 1 1/2"	GLOBE VALVES
2GCT106VV	VALVE - BYPASS VALVE 102VV	Manual Valve 1 1/2"	GLOBE VALVES
2GCT107VV	VALVE - BYPASS VALVE 103VV	Manual Valve 1 1/2"	GLOBE VALVES
2GCT108VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
2GCT109VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 12"	AIR OPERATED CONTROL VALVES
2GCT110VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT111VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT112VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT113VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT114VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT115VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT116VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT117VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT118VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT119VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT120VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT121VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES

Functional Location	Description	Equipment Type	Template
2GCT122VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT123VV	VALVE PNEU CTRLD STEAM EXPANSION	Pneumatic Control Valve 10"	AIR OPERATED CONTROL VALVES
2GCT125VL	VALVE PNEU CTRLD DES/H WATER INTAKE	Pneumatic Valve 3"	AIR OPERATED CONTROL VALVES
2GCT126VL	VALVE PNEU CTRLD DES/H WATER INTAKE		AIR OPERATED CONTROL VALVES
2GCT127VL	VALVE PNEU CTRLD DES/H WATER WTR INTAKE	Pneumatic Valve 4"	AIR OPERATED CONTROL VALVES
2GCT131VV	VALVE PNEU CTRLD DSCH TO ATM RCP001GV	Regulating Valve, globe (linear), Plain carbon steel, Serie 600, Seat, Stellite, Plug, Stellite, Butt weld, Nuclear valves in Safety Class B, 0150, Reduced passage valve	AIR OPERATED CONTROL VALVES
2GCT132VV	VALVE PNEU CTRLD DSCH TO ATM RCP002GV	Regulating Valve, globe (linear), Plain carbon steel, Serie 600, Seat, Stellite, Plug, Stellite, Butt weld, Nuclear valves in Safety Class B, 0150, Reduced passage valve	AIR OPERATED CONTROL VALVES
2GCT133VV	VALVE PNEU CTRLD DSCH TO ATM RCP003GV	Regulating Valve, globe (linear), Plain carbon steel, Serie 600, Seat, Stellite, Plug, Stellite, Butt weld, Nuclear valves in Safety Class B, 0150, Reduced passage valve	AIR OPERATED CONTROL VALVES
2GPV051VV	VALVE DRAIN 001BA OUTLET TO AHP003BA	Motorised Globe Valve DN100	MOTOR ACTUATED VALVES (MOV)
2GPV052VV	VALVE DRAIN FROM MSV AND GV TO AHP003BA	Motorised Globe Valve DN100	MOTOR ACTUATED VALVES (MOV)
2GPV053VV	VALVE DRN F CTRL 001BA OUT TO AHP003BA	Motorised Globe Valve DN100	MOTOR ACTUATED VALVES (MOV)
2GPV054VV	V/V DRN 031-036VV&041- 046VV TO AHP003BA	Motorised Globe Valve DN50	MOTOR ACTUATED VALVES (MOV)
2GPV055VV	V/V DRN HP CSG&SEPTRS RHTRS TO AHP003BA	Motorised Gate Valve DN200	MOTOR ACTUATED VALVES (MOV)
2GSS005VV	VALVE MTR OPTD MAIN STEAM LN DRNS ISOLN	Motorised Globe Valve DN25	MOTOR ACTUATED VALVES (MOV)
<u>2GSS006VV</u>	VALVE MOTOR OPERATED DRAINS ISOLATION	Motorised Globe Valve DN25	MOTOR ACTUATED VALVES (MOV)
2GSS106VL	VALVE FLOW CONTROL EMERGENCY DRAINS	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
2GSS107VL	VALVE FLOW CTRL EM DRNS TO 101BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
2GSS206VL	VALVE FLOW CONTROL EMERGENCY DRAINS	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
2GSS207VL	VALVE FLOW CTRL EM DRNS 201BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
2GSS306VL	VALVE PNEUMATIC FLOW CONTROL TO AHP003BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
2GSS307VL	VALVE FLOW CTRL EM DRNS 301BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
2GSS406VL	VALVE FLOW CONTROL EMERGENCY DRAINS	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
2GSS407VL	VALVE FLOW CONTROL 401BA	Pneumatic Control Valve 4"	AIR OPERATED CONTROL VALVES
2STR002VD	VALVE PNEU CTRLLED FROM SER TO TNK 001BA	Pneumatic Control Valve 2"	AIR OPERATED ISOLATION VALVES
2VVP001PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
2VVP002PU	TRAP STEAM DRAINS TANK	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
	002BA		

Functional	Description	Equipment Type	Template
Location 2VVP003PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
2VVP004PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
2VVP163VL	VALVE PNEU FLOW CTRL DRNS TANK 002BA	Condensed water valve	AIR OPERATED ISOLATION VALVES
2VVP165VL	VALVE-163VL BYPASS ISOLATION	Condensed water valve	GLOBE VALVES
2VVP166VL	VALVE-163VL BYPASS MANUAL FLOW REG	Manual Globe Valve 1"	FLOW REGULATION VALVES
2VVP185VL	VALVE-003PU BYPASS ISOLATION	Condensed water valve	GLOBE VALVES
2VVP186VL	VALVE-003PU BYPASS MANUAL FLOW REG	Manual Globe Valve 1"	FLOW REGULATION VALVES
2VVP189VL	VALVE-004PU BYPASS ISOLATION	Condensed water valve	GLOBE VALVES
2VVP190VL	VALVE-004PU BYPASS MANUAL FLOW REG	Manual Globe Valve 1"	FLOW REGULATION VALVES
2VVP274VL	VALVE MANUAL PNEUMATIC CONTROL	Condensed water valve	AIR OPERATED CONTROL VALVES
9SVA021PU	TRAP STEAM LINE 551 DRAIN	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA022PU	TRAP STEAM LINE 552 DRAIN	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA123VV	VALVE ISOLATION BY PASS 021PU		GLOBE VALVES
9SVA124VV	021PU BY PASS	Manual Flow Control Valve 1"	FLOW REGULATION VALVES
9SVA127VV	VALVE ISOLATION BY PASS 022PU		GLOBE VALVES
9SVA128VV	022PU BY PASS	Manual Flow Control Valve 1"	FLOW REGULATION VALVES
9SVA001PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA002PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA003 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA004 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA005 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA006 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA007 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA008 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA009 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA010 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA011 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA012 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA013 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA014 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA015 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA016 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA017 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
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9SVA018 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA019 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA020 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA021 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA022 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA023 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS

Functional Location	Description	Equipment Type	Template
9SVA024 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA263 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA268 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA272 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9SVA277 PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
9XCA001PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
ASG002PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
ASG003PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS
ASG004PU	TRAP STEAM	Steam Trap, Condensate Drain, Trap	STEAM TRAPS