

FREE STATE PROVINCIAL CAPEX PROGRAMME - EMPLOYMENT DATA

MINIMUM DATA REQUIRED FROM CONTRACTOR MONTHLY

Item No: _____ File No: _____ Report date: _____

Institution: _____

Service: _____

	ACTUAL PAYMENTS	ACTUAL PEOPLE EMPLOYED						ACTUAL TRAINING					
Month	Wages (inc in Constr.)	Monthly Employment - Number of persons and average number work days						Number of persons and training days					
		Men	Youth	Women	Disabled	Work days	Manage	days	Tech skills	days	Life skills	days	
b/f													
April													
May													
June													
July													
August													
September													
October													
November													
December													
January													
February													
March													
TOTAL													

COMMENTS:

Labour content	Benchmark	Offered	Contractor's Name:
Jobs created			Tel:
Training			E-mail:
			Responsible Person:
			Fax:

Maintenance, Refurbishment, Replacement and Upgrades of the Boilers, Supply of Boiler Operators, Steam and Condensate Reticulation, Water Treatment on Boilers and Autoclaves, Autoclaves And Various Mechanical Equipment, Kitchen Equipment, Laundry Equipment and Tunnel Washers at various Institutions in the Free State Province Health Department for a Period 36 Months.

CALCULATION OF PENALTIES

CALCULATION OF PENALTY PER DAY (EXCLUDING VAT)

CONTRACT PERIOD	RATE PER R100 OF ESTIMATE
1 month	27,5 cents
1,5 months	22 cents
2 months	16,5 cents
2,5 months	13,5 cents
3 months	11 cents
3,5 months	9,5 cents
4 months	8,5 cents
4,5 months	7,5 cents
5 months	6,25 cents
6 months	5,75 cents
7 months	4,75 cents
8 months	4 cents
9 months	3,75 cents
10 months	3,5 cents
11 months	3 cents
12 months	2,75 cents
14 months	2,5 cents
15 months	2,25 cents
16 months	2 cents
18 months	1,75 cents
20 months	1,5 cents
21 months	1,5 cents
24 months	1,25 cents
30 months	1 cent
36 months	1 cent
42 months	1 cent

PENALTY PER DAY ROUNDED OFF AS FOLLOWS:

R0	-	R500	nearest	R5
R501	-	R1 000	nearest	R10
R1 001	-	R5 000	nearest	R50
R5 001	-	and above	nearest	R100

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Maintenance, Refurbishment, Replacement and Upgrades of the Boilers, Supply of Boiler Operators, Steam and Condensate Reticulation, Water Treatment on Boilers and Autoclaves, Autoclaves And Various Mechanical Equipment, Kitchen Equipment, Laundry Equipment and Tunnel Washers at various Institutions in the Free State Province Health Department for a Period 36 Months.

EXAMPLE

$$\begin{aligned}\text{Estimated contract value} &= \text{R2 500 000 (excluding VAT)} \\ \text{Contract period} &= 12 \text{ months} \\ &= \text{R2 500 000} \times \frac{0,0275}{100} \\ &= \text{R687,50/day}\end{aligned}$$

Therefore rounded off to the nearest R10.00

$$= \text{R690,00/day}$$

PENALTIES ON CONTRACTS IN PHASES

Penalties must be calculated proportionally on the estimated contract value of each phase

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Part C7.2 BILL OF QUANTITIES - BOILERS

C7.2 Priced rates for servicing, repairs and maintenance of the Coal Fired Steam Boilers, Dual Fuel Boilers and supply of Boiler Operators				
ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
1	15mm copper tubing; class 2; 6,1m length	M	1	R
2	20mm copper tubing; class 2; 6,1m length	M	1	R
3	25mm copper tubing; class 2; 6,1m length	M	1	R
4	76mm copper tubing, class 2 6,1m length	M	1	R
5	50mm copper tubing, class 2 6,1m length	M	1	R
6	40mm copper tubing, class 2 6,1m length	M	1	R
7	15mm heavy duty steam pipe 6,1m length	M	1	R
8	20mm heavy duty steam pipe 6,1m length	M	1	R
9	25mm heavy duty steam pipe 6,1m length	M	1	R
10	Valve gland packing 12,5mm roll	Roll	1	R
11	Valve gland packing 10mm roll	Roll	1	R
12	Valve gland packing 6mm roll	Roll	1	R
13	Graphite pipe jointing compound 5kg container		1	R
14	PTFE thread sealing tape roll	Roll	1	R
15	Rope packing; non asbestos; 40mm x 30m roll	Roll	1	R
16	Rope packing; non asbestos; 25mm x 30m roll	Roll	1	R
17	Rope packing; non asbestos; 15mm x 30m roll	Roll	1	R
18	Manhole gaskets, spirally wound; 460mm x 340mm x 5mm thick x 32mm winding with	No	1	R
19	Side wall header gaskets, spirally wound; 125mm x 82mm x 5mm thick x 10mm winding width	No	1	R
20	Gland packing for Sulzer HCP 15-6½ boiler feed water pump; 6 packing per set	No	1	R
21	Lined webbing; non asbestos; rolls of 50mm x 6mm x 30m	Rolls	1	R
22	Packing material: graphite impregnated wire reinforced sheets, 1,2m x 2,4m x 1,5m	No	1	R
23	Packing material: graphite impregnated, wire reinforced sheets 1,2m x 2,4m x 3,0m	Sheet	1	R
24	Acetylene 8,kg cylinder	Cylinder	1	R
25	Industrial quality Oxygen 11,5kg cylinder	Cylinder	1	R
26	Welding electrodes 2,5mm x 5kg	Kg	1	R
27	Welding electrodes 3,2mm x 5kg	Kg	1	R
28	Brazing rods 1,5mm x 5kg	Kg	1	R
29	Brazing rods 2,5mm x 5kg	Kg	1	R

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C7.2 Priced rates for servicing, repairs and maintenance of the Coal Fired Steam Boilers, Dual Fuel Boilers and supply of Boiler Operators

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
30	Brazing flux 500g container	G	1	R
31	Silver solder 100g	G	1	R
32	Copper to copper gas welding rods	Kg	1	R
33	Gear box oil SAE 90 5 litre container	Litre	1	R
34	Motor oil SAE 30 5 litre container	Litre	1	R
35	Hydraulic oil CONDOR 310 20 litre containers	Litre	1	R
36	Paraffin 20 litre containers	Litre	1	R
37	General purpose grease 5kg containers	Kg	1	R
38	High temperature soot blower grease 15kg	Kg	1	R
39	Bolts, 6mm dia x 25mm long & nuts (HTS)	S	1	R
40	Bolts, 8mm dia x 25mm long & nuts (HTS)	S	1	R
41	Bolts, 8mm dia x 40mm long & nuts (HTS)	S	1	R
42	Bolts, 10mm dia x 25mm long & nuts (HTS)	S	1	R
43	Bolts, 10mm dia x 40mm long & nuts (HTS)	S	1	R
44	Bolts, 10mm dia x 50mm long & nuts (HTS)	S	1	R
45	Bolts, 12mm dia x 40mm long & nuts (HTS)	S	1	R
46	Bolts, 12mm dia x 50mm long & nuts (HTS)	S	1	R
47	Bolts, 16mm dia x 40mm long & nuts (HTS)	S	1	R
48	Bolts, 16mm dia x 50mm dia x 50mm long & nuts (HTS)	S	1	R
49	Bolts, 16mm dia x 65mm long & nuts (HTS)	S	1	R
50	Bolts, 16mm dia x 80mm long & nuts (HTS)	S	1	R
51	Bolts, 16mm dia x 100mm long & nuts (HTS)	S	1	R
52	Bolts, 20mm dia x 50mm long & nuts (HTS)	S	1	R
53	Bolts, 20mm dia x 80mm long & nuts (HTS)	S	1	R
54	Bolts, 20mm dia x 100mm long & nuts (HTS)	S	1	R
55	Paint: PWT TPA no 1; 5 litre containers	litre	1	R
56	Refractory Mortar; 25kg bags (Refcast 50)	Kg	1	R
57	Fibre glass wool sheeting: 50mm x 1,2mm x 6m roll	Roll	1	R
58	Pressure recorder charts for Negretti and Zambra P/N 9D192X	S	1	R
59	Conveyor belting for ach conveyor 400mm wide x 12mm thick 3 ply	M	1	R
60	Troughing rollers for ash conveyor 177mm width x 100mm dia x 25mm shaft dia	S	1	R
61	Return rollers for ash conveyor 485mm width x 100mm dia x 25mm shaft dia	S	1	R
62	Idler rollers for ash conveyor 485mm width x 150mm dia x 25mm shaft dia	S	1	R
63	Compensating rollers for ash conveyor 485mm width x 150mm dia x 25mm shaft dia	S	1	R
64	Conveyor belting for coal conveyor 550mm wide x 12mm thick, 3 ply	M	1	R
65	Troughing rollers for coal conveyor 100mm width x 190mm dia x 20mm shaft dia	S	1	R
66	Return rollers for coal conveyor 100mm width x 535mm dia x 20mm shaft dia	S	1	R
67	Roller bearings: SKF 6311 ZZ	S	1	R

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C7.2 Priced rates for servicing, repairs and maintenance of the Coal Fired Steam Boilers, Dual Fuel Boilers and supply of Boiler Operators

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
68	Roller bearings: SKF 6310 ZZ	S	1	R
69	Roller bearings: SKF 6306 ZZ	S	1	R
70	Roller bearings: SKF 6308 ZZ	S	1	R
71	Roller bearings: MJR 38mm shaft dia	S	1	R
72	Roller bearings: RM 11	S	1	R
73	Roller bearings: NTN 22211 W 33 K	S	1	R
74	Roller bearings: KOYO 22209 RWK 33	S	1	R
75	Roller bearings: KOYO 30215J	S	1	R
76	Roller bearings: SKF 6003	S	1	R
77	40mm steam Barrel nipples	S	1	R
78	50mm steam barrel nipples	S	1	R
79	15mm gate valves	S	1	R
80	20mm gate valves	S	1	R
81	25mm gate valves	S	1	R
82	40mm gate valves	S	1	R
83	50mm gate valves	S	1	R
84	15 stainless steel ball valves	S	1	R
85	20 stainless steel ball valves	S	1	R
86	25 stainless steel ball valves	S	1	R
87	15mm long radius 90° steam bend	S	1	R
88	20mm long radius 90° steam bend	S	1	R
89	25mm long radius 90° steam bend	S	1	R
90	40mm long radius 90° steam bend	S	1	R
91	50mm long radius 90° steam bend	S	1	R
92	15mm C/C weldon Elbows	S	1	R
93	20mm C/C Weldon Elbows	S	1	R
94	25mm C/C Weldon Elbows	S	1	R
95	40mm C/C Weldon Elbows	S	1	R
96	50mm C/C Weldon Elbows	S	1	R
97	15mm C/C Weldon T pieces	S	1	R
98	20mm C/C Weldon T pieces	S	1	R
99	25mm C/C Weldon T pieces	S	1	R
100	40mm C/C Weldon T pieces	S	1	R
101	50mm C/C Weldon T pieces	S	1	R
102	15mm C/C Weldon straight connectors	S	1	R
103	20mm C/C Weldon straight connectors	S	1	R
104	25mm C/C Weldon straight connectors	S	1	R
105	45mm C/C Weldon straight connectors	S	1	R

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C7.2 Priced rates for servicing, repairs and maintenance of the Coal Fired Steam Boilers, Dual Fuel Boilers and supply of Boiler Operators

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
106	50mm C/C Weldon straight connectors	S	1	R
107	25 to 15mm C/C Weldon reducing sockets	S	1	R
108	25 to 20mm C/C Weldon reducing sockets	S	1	R
109	15mm Spirax ft 14 ball float trap	S	1	R
110	20mm Spirax ft 14 ball float trap	S	1	R
111	25mm Spirax ft 14 ball float trap	S	1	R
112	15mm Armstrong 800 Inverted Bucket Trap	S	1	R
113	20mm Armstrong 800 Inverted Bucket Trap	S	1	R
114	20mm Armstrong 812 Inverted Bucket Trap	S	1	R
115	25mm Armstrong 812 Inverted Bucket Trap	S	1	R
116	15mm Steam strainer brass body	S	1	R
117	20mm Steam strainer brass body	S	1	R
118	25mm Steam strainer brass body	S	1	R
119	15mm Steam flap type Non return valve	S	1	R
120	20mm Steam flap type non return valve	S	1	R
121	25mm Steam flap type non return valve	S	1	R
122	40mm Steam flap type non return valve	S	1	R
123	50mm Steam flap type non return valve	S	1	R
124	15mm Sight glass 50mm single window brass body	S	1	R
125	20mm Sight glass 50mm single window brass body	S	1	R
126	25mm Sight glass 50mm single window brass body	S	1	R
127	15 – 20mm sight glass window repair kit	S	1	R
128	15mm cone face steam unions	S	1	R
129	20mm cone face steam unions	S	1	R
130	25mm cone face steam unions	S	1	R
131	40mm cone face steam unions	S	1	R
132	50mm cone face steam unions	S	1	R
133	15mm S/S trim steam globe valve 1000 kPa	S	1	R
134	20mm S/S trim steam globe valve 1000 kPa	S	1	R
135	25mm S/S trim steam globe valve 1000 kPa	S	1	R
136	40mm S/S trim steam globe valve 1000 kPa	S	1	R
137	50mm S/S trim steam globe valve 1000 kPa	S	1	R
138	15mm steam barrel nipples	S	1	R
139	20mm steam barrel nipples	S	1	R
140	25mm steam barrel nipples	S	1	R
141	50 to 40mm C/C reducing sockets	S	1	R
142	40 to 25mm C/C reducing sockets	S	1	R
143	40mm Mobrey modulating control valves	S	1	R

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C7.2 Priced rates for servicing, repairs and maintenance of the Coal Fired Steam Boilers, Dual Fuel Boilers and supply of Boiler Operators

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
144	40mm Mobrey modulating control valve overall kit	S	1	R
145	20mm Hornes valves	S	1	R
146	25mm Hornes valves	S	1	R
147	40mm Hornes valves	S	1	R
148	0-100°C 75mm face dial thermometer	S	1	R
149	0-100°C Angle poise thermometer	S	1	R
150	10mm BSP gauge cock	S	1	R
151	10mm Syphon tube	S	1	R
152	15mm Quarter turn valves (Boiler)	S	1	R
153	20mm Quarter turn valves (Boiler)	S	1	R
154	15mm Parallel slide valve (Boiler)	S	1	R
155	20mm Parallel slide valves (Boiler)	S	1	R
156	25mm Mobrey sequencing valves (Boiler)	S	1	R
157	Pressure gauge 100mm dia bottom entry x 10mm BSP thread range 0 to 2000 kPa	S	1	R
158	Nylatron Elevator Buckets Outside length 320mm width 180mm depth 130mm projection 165mm wall thickness 8mm approx weight 1,13kg approx capacity 4,50 litre	S	1	R
159	Coal screws flight pitch 150mm x 14m	S	1	R
160	Gear box make ISQ 206118, Type VF130AP13285 Ratio 30MTGB3	S	1	R
161	Motor 5.5kw 380 Volt 3PH	S	1	R
162	Cross feed flight pitch 200mm x 17m	S	1	R
163	Gear box make ISQ 206118, Type VF130AP13285 Ratio 30MTGB3	S	1	R
164	Motor 5.5kw 380 Volt 3PH	S	1	R
165	Feed water pumps Grundfos Model no. A96501222P31233 Serial no. CR10-16A-FJ-A-E-HQQE	S	1	R
166	Feed water pumps stork MCH 14A-7	S	1	R
167	Elevator belt buckets 150 x 115 x 85mm	S	1	R
168	Guillotine door cables 6mm x 450mm	S	1	R
169	Bearings FJU210 flanges	S	1	R
170	V belts SPZ1600	S	1	R
171	V belts 16 N x 3170	S	1	R
172	20mm gauge column glass tubes	S	1	R
173	20mm gauge column glass tube cone rubbers	S	1	R
174	Horns valves ¾"	S	1	R
175	Complete John Thompson boiler control panel	S	1	R
176	Complete Premier metal boiler control panel	S	1	R
177	Blower motor	S	1	R
178	Blower motor gasket	S	1	R
179	Fuel nozzle	S	1	R
180	Burner head	S	1	R
181	Burner cone	S	1	R

C7.2 Priced rates for servicing, repairs and maintenance of the Coal Fired Steam Boilers, Dual Fuel Boilers and supply of Boiler Operators

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
182	Burner head gasket	S	1	R
183	Burner blower housing	S	1	R
184	Front end gasket	S	1	R
185	Rear end gasket	S	1	R
186	50mm cast steel straight globe valve	S	1	R
187	40MM blow down valve	S	1	R
188	Grit trolley	S	1	R
189	Fuel trim 73/6000	S	1	R
190	Water Mert Kent WP4000 2"	S	1	R
191	Condensate meter Meinecke WPD 50 2"	S	1	R
192	Ware Control valve Bernad 0276000	S	1	R
193	Level switch Mobrey	S	1	R
194	Rope packing; non asbestos; 15mm x 30mm	S	1	R
195	Manhole gaskets, spirally wound; 405mm x 305mm x 5mm thick x 32mm winding width	S	1	R
196	Lined webbing, non asbestos; 50mm x 6mm x 30mm	S	1	R
197	Packing material: 1,5mm Graphite impregnated, wire reinforced sheet 1,2m x 2,4m x 1,5m	S	1	R
198	Packing material: 3mm Graphite impregnated, wire reinforced sheet	S	1	R
199	Paint: PWT TPA no 1 container	S	1	R
200	Refractory mortar; (Refcast 50)	S	1	R
201	Fibre glass wool sheeting rolls 50mm x 1,2m	S	1	R
202	Conveyor belting for ash elevator 200mm wide x 10mm thick-3py	S	1	R
203	Parts for: Mark 4 Stoker for the boilers	S	1	R
204	Stoker mat common links	S	1	R
205	Stoker mat drive links	S	1	R
206	Stoker mat drive sprockets	S	1	R
207	Stoker roller	S	1	R
208	Stoker links rods	S	1	R
209	Carbo-frax blocks	S	1	R
210	Carbo-frax blocks supports	S	1	R
211	Carbo-frax end blocks	S	1	R
212	Carbo-frax distant pieces	S	1	R
213	Washers 14mm	S	1	R
214	3mm split pins	S	1	R
215	Guillotine door 1050 x 300 x 90	S	1	R
216	Feed water pump Calpido CP3KW 5.8 amp 380 Volt	S	1	R
217	Ash extractor frame complete	S	1	R
218	5 groove pulleys	S	1	R
219	Mobrey control valve PC board Type 86436	S	1	R
220	Level switch Mobrey	S	1	R
221	Sauter electric motor IP 55 ID	S	1	R

C7.2 Priced rates for servicing, repairs and maintenance of the Coal Fired Steam Boilers, Dual Fuel Boilers and supply of Boiler Operators

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
222	FD electrical motor (SMM) Squirrel cage 3 phase TEFC D1325 5,5KW	S	1	R
223	Stoker electrical motor R47 DT 80K4 0,55 KW	S	1	R
224	ID fan electrical motor AFMAC model 6312 30KW	S	1	R
225	Feed pump electrical motor hawker sidely DF 160 MP 15KW 80C rise 3 phase	S	1	R
226	Feed Pump electrical motor WEG 160M 15KW 3 phase	S	1	R
227	Feed pump electrical motor Siemens K4 95503 15KW 3 phase	S	1	R
228	Electrical motor 0,75 KW 3 phase RPM 2850 230-240 volts	S	1	R
229	Electrical motor Moway CMC075T 0,55KW 0,75HP RPM2800	S	1	R
230	Electrical motor Ebara CMAR-00T 0,75KW RPM2850 1,0HP	S	1	R

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C7.2 Priced rates for servicing, repairs and maintenance of the Coal Fired Steam Boilers, Dual Fuel Boilers and supply of Boiler Operators				
ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
231	Bearings SKF 6208	S	1	R
232	Bearings 630903/2	S	1	R
233	Steam Separator 6"	S	1	R
234	Expansion Bellows 5"	S	1	R
235	Grit trolley	S	1	R
236	- Fuel trim 73/6000	S	1	R
237	Water Mert Kent WP4000 2"	S	1	R
238	Condensate meter Meinecke WPD 50 2"	S	1	R
239	Ware Control valve Bernad 0276000	S	1	R
240	Preparation for statutory 36 monthly inspection as per item 2 – 1 Ton up to 9,9 ton	S	1	R
241	Preparation for statutory 36 monthly inspection as per item 2 – 10 Ton up to 20 ton	S	1	R
242	AIA Certificate of Continuance (36 Monthly)	S	1	R
243	AIA Pressure Test (12 Monthly)	S	1	R
-	LABOUR RATES			-
244	Boiler Operators paragraph 17.04	S	1	R
245	Boiler Cleaners	S	1	R
246	Fitters paragraph 17.01	S	1	R
247	Electricians paragraph 17.02	S	1	R
248	Handyman as per paragraph 17:03	S	1	R
249	Labour Technician per hour	S	1	R
250	Labour Technician per hour overtime	S	1	R
251	Labour Technician per hour Sunday and Public Holidays	S	1	R
252	Labour Technician Assistant per hour	S	1	R
253	Labour Technician Assistant per hour over timer	S	1	R
254	Labour Technician Assistant per hour Sunday and Public Holidays	S	1	R
	SUB-TOTAL BOILERS			R

All unit prices that are not included or missed shall be determined through quotation proces with agreed amounts standardised and revised as part of the baseline costs

All prices shall be priced to RSA currency excluding VAT

Al travelling rates will be calculated according to the AA rates for the specific month

BidderER'S SIGNATURE: _____

PRINT NAME: _____

NAME OF FIRM: _____

ADDRESS: _____

CODE _____

TELEPHONE NO: _____ CELL NO: _____

C7.2 Priced rates for servicing, repairs and maintenance of the Coal Fired Steam Boilers, Dual Fuel Boilers and supply of Boiler Operators				
ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]

FAX NO: _____

E-MAIL ADDRESS: _____ DATE: _____

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Maintenance, Refurbishment, Replacement and Upgrades of the Boilers, Supply of Boiler Operators, Steam and Condensate Reticulation, Water Treatment on Boilers and Autoclaves, Autoclaves And Various Mechanical Equipment, Kitchen Equipment, Laundry Equipment and Tunnel Washers at various Institutions in the Free State Province Health Department for a Period 36 Months.

Part C8.1 Scope of Work - Steam Boilers and supply of Boiler Operators

1 SCOPE OF CONTRACT

1,1 This Contract calls for the priced rates for the repairs, service and maintenance of the Steam generating plant and auxiliary equipment in accordance with the requirements as laid down in the Technical Specifications. It, furthermore, entails the servicing, maintenance and repair of said installation, as well as the preparation of the boiler for statutory inspections and being in attendance during any such inspection as well as the six monthly washout inspection in conjunction with appointed Contractor for the treatment of boiler feed water, in accordance with the requirements of the Department: Infrastructure Unit. The systems other than the steam generating plant and auxiliary equipment covered by this Bidder\Contract are the following:

- The Steam and Condensate Reticulation within the boiler house.
- The boiler feed water system, inclusive of hot well tanks, boiler feed water pumps and controls.
- The coal supply, handling and transport system.
- The boiler ash removal plant up to and including the ash bunker.
- Appurtenances to the boilers.
The boiler blow down sump and interconnecting piping, under floor and underground ducting, connecting pipe to the sewer.
- Statutory inspections and Hydraulic test of the compressed air receiver in the Boiler house in accordance with the Occupational Health and Safety Act and Regulations.
- Adherence to the Safety Regulations and membership on the Safety Committee at the institutions.
- Monthly meetings with Management of the Institutions.
- Monthly reports to the Department: Infrastructure Unit
- Supply of all lubricants and cleaning material needed.
- Supply of all hand tools and equipment needed for Contract.

1,2 Competent person

It will be the person appointed as such and who is on Site a promulgated under the Machinery and Occupational Safety Act No 6 of 1983.

1,3 The successful Bidderer shall be required to maintain the complete installation and equipment in a proper and safe operating condition, to clean, adjust and lubricate the equipment as required in terms of the Contract, repair or replace all electrical and mechanical parts as necessary due to wear and tear.

a) This shall include, but not limited to the following:

- (i) Examine the system in accordance with any applicable regulation framed under the Occupational Health and Safety Act 85 of 1993,
- (ii) Properly maintain, adjust and keep the installation and equipment in a safe and proper operating condition at all times,
- (iii) Repair/replace all parts of the installation which may become necessary for the proper use and / or operation of the installation,

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- (iv) Examine, adjust and lubricate the complete installation, supply of all lubricants, replacement parts and the cleaning of material as required for proper maintenance of the equipment,
- (v) Any malfunction or defect occurring within a period of 14 days after any service or repair being executed will be for the account of the Contractor,
- (vi) Examine, periodically and when necessary, all devices and perform any statutory safety tests at or before the expiring of the required intervals
- (vii) Complete the services, maintenance or repair action report, which shall be submitted with any invoice(s).

2 SELECTION OF PERSONNEL

The successful Bidder must scrutinize the qualifications of all applicants and investigate any

3 TOOLS AND TRANSPORT

All hand tools to enable tradesman to carry out their task on the various sites will be the responsibility

4 CLOTHING

All personnel hired as tradesman, handyman or boiler operators must wear protective clothing as prescribed in the Occupational Health and Safety Act, Act no 85 of 1993 at all times during working hours. Overalls must bear the company slogan on it and must be clean and tidy at the start of each shift. No personnel will be allowed to start to work on a site without the required protective clothing.

5 SUPERVISION OF PERSONNEL

All personnel hired under this contract will work directly under the supervision of the Foreman on the site or an appointed Supervisor where applicable. A detailed duty sheet will be handed to hired personnel and the duties on it must be strictly performed. The successful Bidder will not be allowed to interfere or undermine the discipline or authority of the foreman on site.

6 TERMINATION OF EMPLOYMENT OF HIRED PERSONNEL

Any personnel making themselves guilty of misconduct on any site, will immediately be removed from site and not be allowed on any other site for this contract. Any personnel found to be unable to perform the duties prescribed as a result of a Health condition not declared during the interview, will immediately be removed from site. Any personnel found not to possess the tools needed to perform their duties or to wear the protective clothing, will be removed from site immediately.

MISCONDUCT THAT WILL RESULT IN AN IMMEDIATE DISMISSAL

- a) The use of alcohol or intoxicated drugs on the premises
- b) Anybody that commit an offence by
 - Stealing
 - Laziness
 - Insubordination
 - Acts of violence i.e. the use of abusive or insulting language to client or co-workers, fighting, wilful damage to Government-, Client-, or Co-workers property
 - Sleep on duty
 - Non-compliance with work on the duty sheet
 - Staying from work without notifying the site Supervisor for periods exceeding (three) 3 consecutive working days
 - Unauthorized strikes

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7 CONTINUATION OF SERVICE

It is the responsibility and a condition of this Bidder that when an employee takes his annual leave or go on sick leave for periods exceeding two (2) days, the successful Bidderer must supply a suitable qualified person to carry on with the duties of the employee on site and to ensure that the company got excess to sufficient personnel to be able to replace any personnel who resigns or terminate their employment. Failure on the part of the successful Bidderer to replace an employee who vacates his post for any of the above reasons, within two (2) working days will be seen as a breach of contract and result in a fine equal to the hourly rate of such personnel for the duration of the absentee. Any penalties occurred due to the above will be subtracted from the monthly payment due to the contractor for the month in which the breach of contract occur.

8 DESIGN OF EQUIPMENT

No alterations will be allowed to the design of equipment without the prior consent, in writing of the representative of Department: Infrastructure Unit. Any alterations, without permission, to equipment must immediately be rectified at cost to the successful Bidderer or in cases where the equipment is damaged beyond repair the replacement thereof at the successful Bidderers cost.

9 MATERIALS

All materials and spare parts will be supplied by the Contractor according to the scheduled material list to carry out preventative maintenance and repairs on equipment. It is the responsibility of the employee to timeously request all material and spare parts required to carry out his/her work. Any hired personnel found to use material and spare parts for any other purpose than the intended purpose of repairing the Free State Provincial Government property will be immediately dismissed and the cost will be recovered from the successful Bidderer.

10 REDUNDANT COMPONENTS

All redundant material remains the property of the Department: Infrastructure Unit and must be handed to the Representative of the Department: Infrastructure Unit on site. NB – All materials used and all redundant materials must be written on the spreadsheet to be provided and handed back to the Representative together with a completed daily time sheet at the end of each shift.

11 STANDBY DUTIES

It will be expected occasionally of Electricians and Fitters to do standby duties at Hospitals. Standby duties are for a period of seven (7) days and will alternate between personnel on site. Personnel will be paid a standby allowance for each completed period of 24 hours on standby and overtime for each hour spend on actual repairs on a call out. Personnel on call out will be called out by the boiler operator on duty and immediately upon arrival on site report to the Boiler house where his time of arrival will be recorded. The standby personnel must then report to the night Matron on duty at the Hospital and obtain a defect order for the service required.

When the service is completed the night Matron or the Official in charge of the section where the breakdown occurred must sign the completed work of on the defect order. The standby personnel must again report to the Boiler Operator after the call out ended and ensure that the time of departure is recorded correctly.

12 EMERGENCY MATERIAL

In cases of emergency the successful Bidderer will be requested to supply material from scheduled material list. Un Listed Material obtained in cases of Emergency will be paid for on a basis of proven cost plus a 15% mark up. Separate invoices must be provided in each case.

13 BASIC CONDITIONS OF EMPLOYMENT ACT 75 OF 1997

It will be the sole responsibility of the successful Bidderer to ensure that all conditions applicable to the basic conditions of Employment Act, Act 75 of 1997 are strictly adhered to. Bidderers must make adequate provision in their Biddered price to provide for all financial implication that might be required to the adherence of the Act.

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A copy of any contract between the successful Bidder and the employees for this contract, as a result of collective agreement, must be handed to Department: Infrastructure Unit before the employee commences with service.

NB – Employees that makes themselves guilty to any of the misconducts referred to in paragraph 7:00 will be removed directly from site and no compensation as a result of the Act will be forwarded to the successful Bidder.

All salaries must comply to the minimum wages as published by Siefesa.

14 OFFICIAL WORKING HOURS

The official working hours is as it is currently worked but may change in the future in which case the new official working hours will apply.

15,01 Tradesman and Handyman – 40 hours per week

Monday to Friday – 07:00 to 15:30

15,02 Boiler Operators – Shift Workers – 40 hours per week divided into 4 shifts 7 days a week

One shift is a rest shift

Morning shift 06:00 to 14:00

Afternoon shift 14:00 to 22:00

Night shift 22:00 to 06:00

15 PAYMENT FOR PAID PUBLIC HOLIDAYS AND SUNDAY SHIFTS

15,01 PUBLIC HOLIDAYS

15.01.1 Compensation for all personnel other than shift workers will be normal Biddered rate per hour for eight hours. On the time sheet it must be clearly marked Public Holiday.

15.01.2 Boiler operators and other shift workers where their shift or part of their shift falls on a Public Holiday, compensation will be eight hours normal time plus four hours overtime at double time for each completed 8 hour shift

15.01.2 Boiler Operators where their day off falls on a Public Holiday and they are off compensation will be the normal Biddered rate per hour for eight hours. On the time sheet it must be clearly marked Public Holiday.

15,02 SUNDAY WORK

15.02.1 All workers other than shift workers will be remunerated at one and a half time the normal Biddered rate per hour worked.

15.02.2 Shift workers where their normal shift falls on a Sunday or where part of the shift falls on a Sunday will be remunerated at eight hours normal time plus 2 hours at double time for each completed 8 hour shift.

The successful Bidder must pay his employees for this contract at the rates as promulgated under the Basic Conditions of Employment Act, Act 75 of 1997. If cases is reported to Department: Infrastructure Unit where the Contractor does not pay the employees on Public Holidays and Sundays at the set rates it will be seen as a breach of contract and any money paid to the contractor on the above rates will be recovered from the contractor from the first payment following the occurrence.

16 PAYMENT OF EMPLOYEES BY CONTRACTOR

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By Bidding for the execution of this contract the contractor declares that he/she is in the financial position to carry the financial burden to pay the salaries of the employees on this contract on a regular basis on the last working day of each month. Contractors must take into consideration that the monthly payments to the contractor will be in arrears and that the successful Bidderer will have to pay his salaries for each month before the monthly payments due to him/her is finalized.

Due to the fact that late payments of salaries to employees by the employer causes labour unrest it is a firm condition of this Bidder/contract that salaries must be paid on or before the last working day of the applicable month.

17 QUALIFICATIONS OF TRADESMAN

17,01 FITTER

A completed apprenticeship and proof of passing a trade test in terms of section 13 (2)(h) of the manpower training Act 1981 as Amended

OR

A certificate issued under the provision of section 28 or 30 of the manpower training act 1981 as Amended

OR

A certificate issued under the provision of the repealed section 27 of the Act referred to

PLUS

Three (3) years appropriate post qualification experience

18,02 ELECTRICIAN

The Electrical contractor must provide the following documents, when Bidding with the department:

Wireman's certificate handed-in together with the Bidder document.

Electrical contractors license.

Industrial Council registration certificate.

Registration certificate and latest receipt of payment to the Workman's Compensation as required by the Workman's Compensation Act of 1941, as amended.

Master electrician certificate

18,03 HANDYMAN

Three (3) years general experience in the maintenance of buildings, trolleys etc.,

18,04 BOILER OPERATORS

Three (3) years experience in the Operation of Steam Generating Boilers with a minimum evaporation capacity of 4500 kg/hr. Preference will be given to operators in possession of a Boiler Operators Competency Certificate issued by a reputable institution. All boiler attendants must pass a competency test on the operation of the boilers on the site where he/she will be working before commencement of employment.



19 CANVASSING FOR PERSONNEL

The successful Bidderer will have a period of one (1) month from the date of acceptance of his Bidder in which to canvass and employ the personnel needed to fill the various post. During this one (1) month period the existing labour hiring contract will still be applicable. On the date that the existing contract expire all personnel must be in place for this contract.

2 OPERATION OF BOILERS WHEN REQUIRED

2,1 The successful Bidderer/Contractor shall:

2.1.1 operate the boiler installation to ensure a continuous and enough supply of steam at the proper conditions for the hospital and any other user of steam dependent installations covered under this Bidder/Contract.

2.1.2 Operate the boiler installation to ensure that each boiler in operation achieves maximal efficiency both with regard to fuel, water and equipment utilization as well minimum influence on surrounding areas as far as noise and/or pollution are concerned. Any relevant manuals, codes of practice, standards, supplementary instructions, etc, shall be followed in this regard.

2,2 At least one qualified operator and his/her assistant shall be on duty during each of the daily shifts.

2,3 All boiler operators will be given a competency test before they will be allowed to operate any boiler or go on site.

NOTE: ALL WORK IN THIS CONTRACT SHALL BE DONE ACCORDING TO THE STANDARD QUALITY SPECIFICATION FOR STEAM AND CONDENSATE RETICULATION, MARCH 2006, AND CENTRAL HEATING INSTALLATIONS OF THE DEPARTMENT. A COPY SHALL BE MADE AVAILABLE TO THE SUCCESFULL BidderER ON REQUEST

Maintenance, Refurbishment, Replacement and Upgrades of the Boilers, Supply of Boiler Operators, Steam and Condensate Reticulation, Water Treatment on Boilers and Autoclaves, Autoclaves And Various Mechanical Equipment, Kitchen Equipment, Laundry Equipment and Tunnel Washers at various Institutions in the Free State Province Health Department for a Period 36 Months.

Part C8.2 Technical Specification

1 SERVICE REQUIRED:

- 1,1 Replace existing cladding and lagging at various points and sizes, will be indicated on a site inspection
- 1,2 Replace existing steam traps at various points and sizes, will be indicated on a site inspection
- 1,2 Replace existing leaking steam piping and condensate piping will be indicated on a Site Inspection
- 1,4 Prepare surfaces for painting these areas, will be indicated on the site inspection
- 1,5 Preparation of boiler for Statutory Inspections
- 1,6 Repairs to Steam Generating plants and auxiliaries inside the boiler house as required
- 1,7 Hiring of Fitters, Electricians and Boiler Operators

NOTE: All above shall be done only after an inspection was conducted by the Representative of the Department: Infrastructure Unit

2 36 MONTHS STATUTORY PREPARATION AND INSPECTION:

DESCRIPTION OF WORK TO BE PERFORMEND

- 2,01 Isolate and lock intermediate valve on steam mains of the specified boiler in collaboration with the local workshop foreman on site. The Contractor shall comply with General Safety Regulation 5(2)(a) and (b)

Drain boiler through blow down valve. Remove chain grate. Remove manholes, head holes and mud holes.
 - 2,02 Remove all the fittings on the boiler. Expose all welded or riveted seams and short stay bars. Remove feed water dispersion pipes and anti-priming device all brickwork and arches will have to be removed.
 - 2,03 The boiler is to be cleaned to a state in which it is free of all scale, both internally and externally.
 - 2,04 All boiler fittings are to be cleaned, overhauled, tested and certified to be suitable for the application intended.
 - 2,05 All removed parts and components pertaining to the boiler are to be reassembled and fitted to the boiler, the boiler filled with water for hydraulic test.
 - 2,06 Removed sections of lagging are to be remounted, brickwork and arches having been broke down, are to be rebuilt, and the stoker, is to be re-installed.
- ### **3 FITTINGS**
- 3,01 All the fittings are to be stripped and cleaned and shall be free of all scale and rust (internally and externally). All old packing, glands packing are to be removed and areas shall be cleaned.
 - 3,02 All valves shall be visually checked for possible damage and defects that will cause valves to be unsafe for further use.
 - 3,03 Check and clean all studs/threaded holes/bolts and nuts for possible damage or defects.
 - 3,04 All the valve seats are to be resealed by lapping ensuring proper and drop tight seating under pressure.
 - 3,05 All the fittings are to be dismantled, the parts being displayed on the bench for inspection purposes on the day specified for the fittings inspection.
 - 3,06 After all the fittings have been assembled and before being mounted on the boiler, these shall be hydraulically tested to 1.25 x the authorized working pressure, using a hand pump.
 - 3,07 Any major repairs/replacement may only be carried out after written instruction by the Department Health: Infrastructure Unit has been issued.

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- 3,08 Overhauling of soot blowers must be done by authorized agents, the two shut off steam valves in front of the soot blowers does form part of this contract, including steam traps.

4 WATERSIDE OF BOILER

- 4,01 All scale deposits inside /or on the outside surface of the tubes are to be removed from accessible areas by means of wire brushing.

- If a rattler type descaler is to be used it shall be done under full time supervision of the successful contractor
4,02 to prevent any damage through improper use of such equipment.

- Should any damage occur through the incorrect use or the failure of such equipment the successful Bidderer/contractor shall be responsible to effect the necessary repair to the satisfaction of the Department: Infrastructure Unit at his own cost in the most suitable way, which is to be determined by Control Boiler Inspector.
4,03

5 EXTERNAL AND FIRESIDE

5,01 SHELL, FURNACE, REVERSAL CHAMBER, MUDHOLES AND MANHOLES

- 5.01.1 All accessible areas are to be cleaned and shall be free of all scale and rust by means of wire brushing and scraping without damaging or removal of any of the underlying material
- 5.01.2 All seating surfaces of all mud holes and manholes are to be cleaned and shall be free of old packing/gasket material. Care shall be taken not to damage the under- lying surfaces.

- Threaded section of draw bolts on all mud holes and Manholes are to be properly cleaned without causing
5.01.3 damage to the threads.

5.02 WELDED SEAMS

All accessible areas of welded seams are to be cleaned and shall be free of scale. This shall be accomplished by means of wire brushing and scrapping without deforming the surface or the removal of any of the underlying metal.

6.00 HYDRAULIC TEST AND EXTERNAL INSPECTION

- 6,01 All cleaning material and foreign matter shall be removed from inside the boiler.
- 6,02 Feed water dispersion pipe and anti-priming device shall be reinstalled.
- 6,03 Remount all boiler fittings with suitable new gaskets and packing where required. All mud holes and manholes shall be fitted using new gaskets as specified.
- 6,04 The boiler shall be filled with cold raw water by means of a hosepipe until all air is removed from the highest point or air purge valve where provided.

The pressure in the boiler must be raised slowly by means of a hand pump to the authorized working pressure to check for possible leaks on fittings and joints, and repairing of such faults, when they occur. Under no circumstances will it be allowed to exceed the working pressure at this stage.

- 6,06 Under no circumstances must the boiler be left under pressure for any extended period of time.
- 6,07 All safety valves springs must be removed. The seat on the valve must be gag during hydraulic pressure after word these gag must be removed and showed to the Control Boiler Inspector

- On the day of the specified inspection the pressure in the Boiler is to be raised slowly to the authorized
6,08 working pressure for ± 15 min before the time of the scheduled inspection. The final test pressure will be determined by the Boiler Inspector.

7 PAINTING

After the successful completion of the hydraulic test and external inspection all the welded seams and areas normally covered by brickwork and arches (if removed) must be treated with 3 coats of PWT no 1 paint, which will be supplied by the Contractor.

All grit arrestors, cyclone, ducting, FD and ID fans ducting must be painted with a heat resistant aluminum paint.

8 LAGGING



Lagging removed from all welded seams and attachment welds are to be reinstalled in workman like manner, leaving a neat well finished installation.

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The following are to be done on overhauling of chain grate stoker.

- 9,01 Remove and strip all worn and broken stoker drive and common links. Strip out all old stoker chain rods and re-install new rods. Remove and inspect the condition of drive shafts, bearing blocks and drive gears. Supply and install new stainless steel sliding strips. Remove, inspect and re-install broken or damaged side seals, carbofrax blocks and brackets.

NB: The following must be replaced and will be supplied by the Contractor: Rods, Washers, Stainless Steel Split Pins, Rear Roller, Drive Gears, New Stainless Steel Sliding Strips and Carbofrax Blocks, drive links and side links.

Common links will only be replaced if required and approved by the Control Boiler Inspector in writing.

- 9,02 Replace and re-install end roller. Check and straighten air guide veins where necessary. Check and set under grate dampers for correct operation. Check chain tensioner bolts. All parts needed to overhaul stoker that does not form part of the price schedule will be supplied by the successful contractor and paid out of the Maintenance cost adjustment

- 9,03 Check and repair guide plate under stoker where necessary. (Contractor to supply material and labour). Replace thrust bearing on worm gear of stoker drive. Inspect and report on condition of main worm wheel and worm gear. Reassemble complete stoker.

- 9,04 The stoker is to be re-installed after the brickwork and further required preparation has been completed. The site must be left clean and tidy after the completion of the contract.

9.05 SCOPE OF WORK ON SOOTBLOWERS

1. Collect, strip, degrease and chemically clean blowers.
2. Re-sleeve steam chest.
3. Replace neck rings.
4. Replace steam spindle assemblies.
5. Replace bronze bushes.
6. Replace caps and operating nuts.
7. Replace piston rings.
8. Replace hammer drive screws.
9. Replace split pins and gland packing.
10. Present pre-assembly for inspection by Reg. inspector.
11. Assemble
12. Paint with suitable etching primer.
13. Commission on Boiler with correct nozzle setting.
14. If beyond repairs replace with new

10.00 OVERHAUL CATER GEAR BOX / GEAR BOX

Gear box must be overhaul as per manufacture specification, should it not be economical to repair, the gear box must be replaced with a variable speed drive motor gear box and all additional modification to make this a working installation to the boiler panel.

11 GRIT ARRESTOR / CYCLONES

Where possible parts of the inlet and outlet of the ducting to and from grit arrestor must be removed for cleaning and inspection purposes. Where this is not possible and there is now other means of access into grit arrestor, a new inspection door must be supplied and installed, Insuring airtight to grit arrestor. The size of these inspection doors must be 450 x 450 x 6mm mild steel. All stubs and swills must be removed and clean by means of sandblasting.

12 DETAILED TECHNICAL REQUIREMENTS

- Any repairs to the boiler that may become necessary during this contract will only be carried out on written instruction of the Department: Infrastructure Unit. After receipt of such an instruction, a written repair procedure shall be obtained from an approved inspection authority. Proof of the required and appropriate SABS Accreditation shall accompany such submissions. Any such repair work carried out will be at extra cost to the Department: Infrastructure Unit.
- 12.01

- Should scale build up on the water side be excessive, chemical cleaning may be considered. Only an approved water treatment contractor on written instruction of the Department: Infrastructure Unit may affect this type of cleaning.
- 12.02

- 12.03 Sand blasting and needle descaling to remove excessive fire scale on the outer shell will only be carried out on written approval by the Department: Infrastructure Unit

Care shall be taken not to damage the underlying metal base or to remove as little of the underlying metal as possible.

- 12.04 Chipping to remove any scale on any area of the Boiler is not permitted and will not be tolerated.

- 12.05 Any welding on any part of the boiler will only be allowed on written approval of an approved inspection authority accredited to SABS 0227/ Part 2. Only an approved coded welder with a valid certificate may do such welds and an approved repair and welding procedure, which is to be submitted prior to any welding shall be followed.

- 12.06 Should the removal of all external lagging become necessary after adjudication of this contract, and no prices were allowed for in the price schedule, this will be at extra cost to the Department: Infrastructure Unit.

- 12.07 Any re-lagging of the boiler will only be permitted after thorough cleaning and painting has been completed.

- 12.08 Any re-lagging of the boiler shall be carried out by a reputable lagging company approved by the Department: Infrastructure Unit.

- 12.09 Filling of the boiler must be with cold raw water and utmost care must be taken to prevent over filling and any spilling.

Any damage occurring in this respect, necessitating i.e. removal and replacing of lagging will be for the account of the successful Bidderer/ contractor.

Pressurizing the boiler shall be done by using a suitable hand pump, any other method is not permitted.

- 12.10 Should the boiler be over pressurized through any means whatsoever and any damage sustained through this occurrence, the successful Bidderer/contractor shall be responsible for payment for such repairs.

The painting of areas specified and rebuilding of brickwork and arches are part of this contract.

- 12.11 Wire brushing of threads on brass fittings is prohibited.

- 12.12 Time is of the essence for this contract and the contractor is to ensure that all work is completed on the scheduled dates.

- 12.13 Equipment, tools and material necessary to carry out the work as specified herein must be supplied by the contractor.

- 12.14 Portable lights used are to be in compliance with Electrical Machinery Regulations, R10, promulgated under the Machinery and Occupational Safety Act, 1983.

- 12.15 The successful Bidderer/contractor must at all times ensure that Access to operate and maintain any of the other boiler/s in the Boiler House is not obstructed or impeded in any way.

- 12.16 Storage of equipment and material shall solely and fully be the responsibility of the contractor, and no liability for any damage or loss of equipment of the successful Bidderer /contractors stored on site will be accepted by the Department: Infrastructure Unit.

- 12.17 All work carried out within this contract will only be permitted during normal working hours, unless prior arrangement was made.

13 LAGGING

The entire surface of the Boiler shall be thoroughly cleaned of all scale, oil, grease, rust, etc., by means of sandblasting, (see section 6.00 paragraph 3) without damaging the underlying surface or the excessive or unnecessary removal of underlying metal.

The entire outer surface of the boiler shall then be painted with three coats of PWT no 1 paint. The quality of the paint supplied by the contractor will be approved by the Control Boiler Inspector before any paint can be put to the surfaces before any rust or dirt can form on or adhere to the surface.

A 50mm thick 120-140kg/m³ density mattress of glass wool or slag wool shall be secured to the boiler shell with sufficient galvanized steel strapping Thermal conductivity of insulation to be approximately 0,045W/m° C. The shell must then be enclosed by means of 0,9mm thick grade 430B stainless steel sheet metal.

All other surface such as the fire box must be lagged with a 40mm thick non asbestos composition layer troweled to a smooth finish and after allowing sufficient time for drying be paint with two coats of heat resistant aluminum paint.

Installation of lagging must be done in such a manner that all main welding seems as identified areas by Control Boiler Inspector are permanently exposed. These open areas will be approximately 100mm wide and must be rounded off neatly.

Openings between lagging and fittings must be sealed off by means of an non asbestos rope and a non-hardening silicone sealer.

To enable the competent person to examine welded joints, cover strips, secured by means of stainless steel self-tapping screws, shall be installed over joints.

Name plate, boiler inspector plate etc., shall be left un-lagged and must NOT BE SANDBLASTED.

14 TESTING / INSPECTION AUTHORITY

All MPI, ultrasonic and thickness testing must be done by a reputable level 3 SANAS registered company. An approved inspection authority with a registered pressure vessels certificate and register with SANAS must inspect the boiler with the Control Boiler Inspector and complete all relevant documents.

15 GENERAL NOTES TO BidderER

All work executed under this contract shall comply fully with the Regulations of the Occupational Health and Safety Act, Act 85 of 1993 and all amendments thereof, as well as any Regulations and Standards,

- a) promulgated under said Act and which, are in force during the time between handing over of the site to the successful Bidderer/ contractor and the handing over of the completed contract to the Department: Infrastructure Unit.

- b) The materials and fittings of the boiler are to the relevant current British Standard specification and to the requirements of approved Inspection Authorities. All threads on pipes, studs, etc., are to British Standards. This shall be maintained by the Contractor.

- c) The contractor shall further more work in close collaboration with the Control Boiler Inspector of the Department: Infrastructure Unit to ensure satisfactory progress of the work.

- d) No second hand equipment of any description may be offered for the use in this contract.

- e) All schedules which accompany the Bidder notice are an integral part of the Bidder and shall be duly completed in every detail, failing which, the Bidder in question may be rendered ineligible for consideration.

- f) Alarms, cutouts and pump controls to be checked for Correct operation under cold conditions directly after completion of the hydraulic test.

- g) Valves on boilers will be opened at random to check for correct assembly after hydraulic inspection.

- h) Boiler internal to be inspected before filling for hydraulic test by the Infrastructure Unit to ensure correct assembly of the dispersion pipe assembly and that no foreign matter is left inside the boiler.

- i) All work must be done according to the standard quality specification for boiler installations.

16 Bidder DEVIATIONS

16.01 This specification has preference over any additional documentation submitted by a Bidderer. Deviations from this specification will only be considered if indicated as such in this document and has been proven to be suitable for this particular application.

16.02 If the Bidderer wishes to clarify certain aspects of his offer, this may be done in an additional document

16.03 These items will be subject to the written approval of the Department: Infrastructure Unit.

17 BUILDER'S WORK (FIRE BRICK WORK)

All builders work required under this Bidder is part of this contract and Bidderers must make provision therefore under the Bidder price.

18 ELECTRICAL / BOILER PANELS

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Contractor must clean all relevant boiler control panels and as set out in prices schedule to repair / replace as required. He must test and submit a full report on the condition of the boiler control panel. Should it be uneconomically to repair the boiler control panel it must be replaced with a new panel as required by the manufacture specification.

All electrical work required under this contract shall be in accordance with the latest issue of the "Standard Quality Specification for General Electrical Installations GP/ESI Latest addition".

19 ROOF FLASHING

Roof flashing around safety valves vent pipe must be made good after securing vent pipe subsequent to a successful inspection/test.

20:00 COMMISSIONING AND TRAINING

After completion the contractor must execute a cold commissioning on the relevant boiler insuring that all safety devises are in place and in working order. After these tests has been executed the boiler will be fired up by his own boiler operator under which they relevant boiler operators on site will be trained as specified in the following for a period as refer to in the price schedule.

TRAINING SCHEDULE

20.01 Train boiler operators on all safety devises and safety aspects (high level alarm, low level alarm, cut out, mobrey testing, gauge glass testing and safety valves)

20.02 Train boiler operators to steam boiler to a economically standards as set out by the manufactures (coal supply, coal bed thickness, draft control, cleanings of boilers, cleaning of fly ash in smoke box on a regular basis).

20.03 Testing of boiler TDS and mixing of chemicals for water treatment.

20.04 Ensure that blow down intervals comply with the water treatment

20.05 To curry out proper soot blowing on boilers

20.06 Fill in all relevant log books as required by the OSH act and proper shift hand over.

21 SIX MONTHLY WASHOUT INSPECTION:

- 1 Shut down boiler for annual maintenance and cool it
- 2 Clean fire tube plates front and back
Clean tubes of boiler 1st pass, 2nd pass and 3rd pass to a state in which it is free of all scale, both internally and externally
- 3 and externally
- 4 Remove and check stocker grate mark and stoker gearbox
Check and rebuilt building work and arches having broken down i.e ignition arch, ring arches and guillotine
- 5 door and secondary arches
- 6 Check and clean all welded or riveted seams and short stays shall be free of scale
- 7 Open and clean grit arrestors and cyclones
- 8 Open, clean and balance FD fan. Re-grease bearings
- 9 Open, clean and balance ID fan. Re-grease bearings
- 10 Check boiler feed pumps and re-grease bearings
- 11 Calibration boiler pressure gauge
- 12 Electrical control panel to be serviced and cleaned
- 13 Check, clean and reset of mobreys and safety valves
- 14 Check and clean of sootblowers
- 15 Check and clean all fittings of free scale and rust i.e valves, gauge columns, including auxiliary valves, non return valve and modulating valve
- 16 Removal of all fly ash in boiler

HEALTH AND SAFETY SPECIFICATION

1 All piping and ducting which can allow steam, water, condensate, boiler feed water or flue gasses entering the boiler on which work is to be performed, shall be isolated by the Contractor, and remain isolated in such a manner that persons performing work on the boiler, shall be safe. Any valve or damper used for isolation shall be chained and locked in the closed position.

2 Lead lights shall operate at a voltage less than 50V and all hand held electrical tools and the ventilation fan shall be protected by earth leakage or be double insulated.

The electrical supply to the boiler shall be isolated, locked and tagged or physically isolated. This shall be done by the contractor Electrician. The contractor shall arrange for this and file a written signed statement by the Electrician that the boiler is isolated with a COC certificate.

The steam and waterside of the boiler shall be ventilated by providing a 125mm diameter centrifugal fan temporarily mounted to extract air from a mud hole. The fan shall deliver 0,1m³/s at 50Pa. It shall be similar or equal to Donkin type CDC 125/1.0

In the event of scaffolding being used, it shall be carried out under the supervision of a competent person.

Rigging equipment shall be used for items where more than 1 person is required to man-handle the item.

Fall arrest equipment shall be provided and worn where there is a danger of falling.

Head, foot, eye, ear and nasal dust protection equipment is to be provided and worn as indicated by a hazard identification process.

The Contractor is to perform the duties as imposed by the Construction Regulations, R1010, of 2003.

The contractor shall supply all cleaning machines, sandblasting equipment, lapping equipment, lead lights, scaffolding and safe step ladders to complete this Bidder.

1 DESCRIPTION

REMOVE / STRIP FROM BOILER AS REQUIRED

1,1 All fittings i.e. valves, gauge columns, etc., including auxiliary valves and non-return valves where applicable

1,2 Remove coal hopper(s)

1,3 Automatic stoker(s)(only remove)

1,4 Sheet metal covering and lagging over welded or riveted joints as well as covering over stay bars on rear of semi wetback boilers.

1,5 Cover plates over tubes / bars

1,6 Building work, fire brickwork i.e. ignition Arch ash retaining walls brickwork, ring Arches and Guillotine door and secondary arches.

1,7 Sheet metal and lagging around blow down valve (s)

1,8 Sheet metal and lagging around ash port (s)

1,9 Sheet metal and lagging for outer shell

2 CLEANING OF BOILER

2,1 Tube plates on water side

2,3 Water side of boiler shell

2,4 Tubes ordinary and stay tubes or stay bars (water side)

2,5 Tube plates on fire side

2,6 Furnace flue (s)

2,7 1st pass
2nd pass
3rd pass
Chambers

2,8 Tubes ordinary and stay tubes or stay bars (fire side)

2,9 Weep holes (Tell tale holes)

2,1 Ash port (s)

3 MACHINE BOILER PADS

3,1 Safety valve pad(s)

3,2 Crown valve

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8.3 Replace complete soot blowers

8 STRIP AND CLEAN TWO SOOT BLOWERS – SEE PAGE DTR 5 POINT (9.05) CONTRACTOR MUST PRICE ACCORDINGLY

8.1 No 1

8.2 No 2

8.3 Replace complete soot blowers

9 STRIP AND CLEAN SAFETY VALVES

9.1 1 x _____ double spring safety valve

9.2 Replace safety valve springs

10 STRIP AND CLEAN REASSEMBLE STOKER GRATE MARK

10.1 Strip clean and reassemble stoker grate

10,2 Replace stoker rods

10,3 Replace washers

10,4 Replace split pins stainless steel

10,5 Replace rear roller

10,6 Replace drive sprockets

10,7 Replace drive shaft

10,8 Replace stainless steel wear strips

10,9 Replace carbofrax blocks

10.10 Replace drive links

10.11 Replace common links

10.12 Replace left hand side links

DESCRIPTION

10.13 Replace right hand side links

10.14 Replace spur gear / worm wheel

10.15 Replace bearings / bushes on gearbox

10.16 Replace oil in worm wheel box

11 STRIP AND CLEAN (ONE) STOKER GEARBOX

11,1 Strip and clean Stoker gearbox

11,2 Replace oil

11,3 Replace bearings

11,4 Replace bushes

11,5 Replace inspect worm wheel

11,6 Replace shaft

11,7 Replace oil seals

11,8 Replace bearings on motor

11.9 Replace drive coupling between motor and gearbox

11.10 Replace drive sprockets

11.11 Replace drive chain

11.12 Replace motor fan

12 REPLACE CATER GEARBOX CONTRACTOR MUST PRICE ACCORDINGLY

12.1 Replace variable speed drive motor gear box and inverter

13 FANS

SUPPLY AND INSTALL NEW BEARINGS

- 13.1 ID fan motor
- 13.2 FD fan motor
- 13.3 ID fan
- 13.4 FD fan
- 13.5 ID fan plumber blocks
- 13.6 FD flanges bearing
- 13.7 New groove pulley for motor / fans
- 13.8 New taper locks for motor / fans
- 13.9 New keys for motor / fans
- 13.10 New drive couplings
- 13.11 New match set V-belts
- 13.12 Balance ID fan in position on site
- 13.13 Balance FD fan in position on site

14 STRIP AND CLEAN REASSEMBLE GRIT ARRESTOR

- 14.1 Open and clean grit arrestor
- 14.2 Cut and manufacture 600 x 600 manual
- 14.3 Remove tubes
- 14.4 Remove swills
- 14.5 Install new vibrating eliminators
- 14.6 Cyclones
- 14.7 Ducting

15 COAL SCREW

- 15.1 Remove coal from coal bunker
- 15.2 Remove coal screw casing
- 15.3 Remove coal screw
- 15.4 Supply and install a new coal screw casing
- 15.5 Supply and install coal screw
- 15.6 Supply and install a new coal screw motor and gear box

16 TRAPPING ARRANGEMENT (SEE ATTACHED DRAWING)

- 16.1 Supply and install new trapping arrangement(s) T4

17 REPLACE BUILDING WORK

- 17.1 Ignition Arch(s)
- 17.2 Ash retaining wall(s)
- 17.3 Secondary arch(s)
- 17.4 Ring Arch(s)
- 17.5 Replacing air seal inside furnace flue(s)
- 17.6 Around automatic stoker
- 17.7 Side seals
- 17.8 Webbing (tube plate covers)

18 TESTING

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18.1 MPI Testing

18.2 Ultrasonic Testing

19 Thickness Testing

20 Supply Magnetically Spray

a) White back ground x 6

b) Penetrating x 3

19 Calibration boiler pressure gauge

19.1 Approved inspection authority(3 x visit)

20 CLEAN REPAIRS BOILER PANEL

20.1 Clean boiler panel

20.2 Secure all electrical connections

20.3 Clean all contactors

20.4 Replace all variable pretension meter

20.5 Replace all stop start buttons

20.6 Replace all panel indication lamps and holder

20.7 Replace photo and magnahelix meter(s)

20.8 Clean and reset over loads switches

20.9 Replace sauter box motors

20.10 Clean Mobrey panel

20.11 Replace all magnet switches

20.12 Replace solenoid coils

20.13 Replace boiler alarm

20.14 Test for faults and report

20.15 Replace level control diaphragm in coal shut

20.16 Replace electric wiring on coal hopper

23 REPLACE BOILER PANELS – CONTRACTOR MUST PRICE ACCORDINGLY

23.1 Replace boiler control panel

24 COMMISSIONING OF BOILER - CONTRACTOR MUST PRICE ACCORDINGLY

Contractors must submit a price to fire up the boiler and reset all controls and safety devices to working order on completion of boiler. The contractor must steam the boiler with own boiler personnel and train boiler attendants for a period of 7 (seven) days on a 8 (eight) hour day shift (08:00 until 16:00).

26 Comply with responsibilities as imposed by Construction Regulations R1010

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Part C9.2 BILL OF QUANTITIES - STEAM AND CONDENSATE RETICULATION

C9.2 Price rates for servicing, repairs maintenance of the Steam and Condensate Reticulation and Various Mechanical Equipment				
ITEM NO.	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
1	15mm ball float valve	S	1	R
2	20mm ball float valve	S	1	R
3	25mm ball float valve	S	1	R
4	15mm Steam barrèl nipples	S	1	R
5	20mm Steam barrel nipples	S	1	R
6	25mm Steam barrel nipples	S	1	R
7	40mm Steam barrel nipples	S	1	R
8	50mm Steam barrel nipples	S	1	R
9	Armstrong 800 Steam trap repair kit: 4.27mm orifice	S	1	R
10	Armstrong 800 Steam trap gasket sets	S	1	R
11	15mm Spirax FT14 Steam traps	S	1	R
12	20mm FT14 Spirax Steam traps	S	1	R
13	25mm FT14 Spirax Steam traps	S	1	R
14	15 to 20mm Spirax Sarco sight glass window repair kits	S	1	R
15	15mm brass horns valves	S	1	R
16	20mm brass horns valves	S	1	R
17	25mm brass horns valves	S	1	R
18	32mm brass horns valves	S	1	R
19	15mm S'S trim globe valve 10 bar	S	1	R
20	20mm S'S trim globe valve 10 bar	S	1	R
21	25mm S'S trim globe valve 10 bar	S	1	R
22	15mm cone face steam unions	S	1	R
23	20mm cone face steam unions	S	1	R
24	25mm cone face steam unions	S	1	R
25	15mm copper tubing, class 2 6,1m length	S	1	R
26	20mm copper tubing, class 2 6,1m length	S	1	R
27	25mm copper tubing, class 2 6,1m length	S	1	R
28	40mm copper tubing, class 2 6,1m length	S	1	R
29	50mm copper tubing, class 2 6,1m length	S	1	R
30	80mm copper tubing, class 2 6,1m length	S	1	R
31	15mm heavy duty steam pipe 6,1m length	S	1	R
32	20mm heavy duty steam pipe 6,1m length	S	1	R
33	25mm heavy duty steam pipe 6,1m length	S	1	R

C9.2 Price rates for servicing, repairs maintenance of the Steam and Condensate Reticulation and Various Mechanical Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
34	40mm heavy duty steam pipe 6,1m length	S	1	R
35	50mm heavy duty steam pipe 6,1m length	S	1	R
36	80mm heavy duty steam pipe 6,1m length	S	1	R
37	Valve gland packing 12,5mm	S	1	R
38	Valve gland packing 10mm	S	1	R
39	Valve gland packing 6mm	S	1	R
40	Graphite pipe jointing compound; 5kg container	S	1	R
41	Rope packing; non asbestos; 40mm x 30mm	S	1	R
42	Rope packing; non asbestos; 25mm x 30mm	S	1	R
43	15mm flap type brass body non return valves	S	1	R
44	20mm flap type brass body non return valves	S	1	R
45	25mm flap type brass body non return valves	S	1	R
46	40mm flap type brass body non return valves	S	1	R
47	50mm flap type brass body non return valves	S	1	R
48	15mm steam strainers, brass body	S	1	R
49	20mm steam strainers, brass body	S	1	R
50	25mm steam strainers, brass body	S	1	R
51	40mm steam strainers, brass body	S	1	R
52	50mm steam strainers, brass body	S	1	R
53	Rope packing; non asbestos; 15mm x 30mm	S	1	R
54	Packing material: 1,5mm Graphite impregnated, wire reinforced sheet 1,2m x 2,4m x 1,5m	S	1	R
55	Packing material: 3mm Graphite impregnated, wire reinforced sheet	S	1	R
56	Valve gland packing 8mm	S	1	R
57	Paint: PWT TPA no 1 container	litre	1	R
58	Fibre glass wool sheeting rolls 50mm x 1,2m	S	1	R
59	Pressure Gauge, 100mm dia, bottom entry x 10mm BSP thread, range 0 to 2000 KPA	S	1	R
60	10mm siphon tube	S	1	R
61	10mm cock valves	S	1	R
62	15mm TLV steam traps	S	1	R
63	20mm TLV steam traps	S	1	R
64	25mm TLV steam traps	S	1	R
65	Steam Separator 6"	S	1	R
66	Expansion Bellows 5"	S	1	R
67	Lagging preformed pipe section fiber glass ½"	S	1	R
68	Lagging preformed pipe section fiber glass ¾"	S	1	R
69	Lagging preformed pipe section fiber glass 1"	S	1	R

C9.2 Price rates for servicing, repairs maintenance of the Steam and Condensate Reticulation and Various Mechanical Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
70	Lagging preformed pipe section fiber glass 1½"	S	1	R
71	½ " brass globe valves	S	1	R
72	¾" brass globe valves	S	1	R
73	1" brass globe valves	S	1	R
74	1 ½" brass globe valves	S	1	R
75	Lagging preformed pipe section fiber glass 1 ¾"	S	1	R
76	Lagging preformed pipe section fiber glass 2"	S	1	R
77	Lagging preformed pipe section fiber glass 2½"	S	1	R
78	Lagging preformed pipe section fiber glass 2 ¾"	S	1	R
79	Lagging preformed pipe section fiber glass 3"	S	1	R
80	Lagging preformed pipe section fiber glass 4"	S	1	R
81	Lagging preformed pipe section fiber glass 5"	S	1	R
82	Lagging preformed pipe section fiber glass 6"	S	1	R
83	Galvanized muffs ½"	S	1	R
84	Galvanized muffs ¾"	S	1	R
85	Galvanized muffs 1"	S	1	R
86	Galvanized muffs 1½"	S	1	R
87	Galvanized muffs 1¾"	S	1	R
88	Galvanized muffs 2"	S	1	R
89	Galvanized muffs 2½"	S	1	R
90	Galvanized muffs 2¾"	S	1	R
91	Galvanized muffs 3"	S	1	R
92	Galvanized muffs 4"	S	1	R
93	Galvanized muffs 5"	S	1	R
94	Galvanized muffs 6"	S	1	R
95	40mm conex straight connector	S	1	R
96	50mm conex straight connector	S	1	R
97	Gate valves ½"	S	1	R
98	Gate valves ¾"	S	1	R
99	Gate valves 1"	S	1	R
100	Gate valves 1 ½"	S	1	R
101	Gate valves 1 ¾"	S	1	R
102	Gate valve 2"	S	1	R
103	Gate valve 3"	S	1	R
104	Gate valve 4"	S	1	R
105	15mm cast steel body strainer	S	1	R

C9.2 Price rates for servicing, repairs maintenance of the Steam and Condensate Reticulation and Various Mechanical Equipment

ITEM NO.	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
106	20mm cast steel body strainer	S	1	R
107	25mm cast steel body strainer	S	1	R
108	40mm cast steel body strainer	S	1	R
109	1/2 " brass angle globe valve	S	1	R
110	1½" brass globe valve	S	1	R
111	Temperature Thermometer Ispecl 0-120°C	S	1	R
112	Pressure relieve Bailey 323 2"	S	1	R
113	15mm pressure reducing valve 100-700 Kpa	S	1	R
114	Pressure reducing valves ¾" 100-700KPA	S	1	R
115	Circulating pump Moway	S	1	R
116	Condensate pump Mand B 40M0/75	S	1	R
117	Level switch Mobrey	S	1	R
118	Safety valve pull up type ¾"	S	1	R
119	Safety valve pull up type 1"	S	1	R
120	Central Heating radiators	S	1	R
121	Central Heating Pearch Cocks	S	1	R
122	15mm conex male adaptor	S	1	R
123	20mm conex male adaptor	S	1	R
124	25mm conex male adaptor	S	1	R
125	15mm conex straight connector	S	1	R
126	20mm conex straight connector	S	1	R
127	25mm conex straight connector	S	1	R
128	50mm cast steel globe valves	S	1	R
129	65mm cast steel globe valves	S	1	R
130	75mm cast steel globe valves	S	1	R
131	15mm cast steel pressure reducing valves	S	1	R
132	20mm cast steel pressure reducing valves	S	1	R
133	25mm cast steel pressure reducing valves	S	1	R
134	32mm cast steel pressure reducing valves	S	1	R
135	40mm cast steel pressure reducing valves	S	1	R
136	50mm cast steel pressure reducing valves	S	1	R
137	65mm cast steel pressure reducing valves	S	1	R
138	75mm cast steel pressure reducing valves	S	1	R
139	300 litre vertical calorifiers	S	1	R
140	500 litre vertical calorifiers	S	1	R
141	1000 litre vertical calorifiers	S	1	R

C9.2 Price rates for servicing, repairs maintenance of the Steam and Condensate Reticulation and Various Mechanical Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
142	2000 litre vertical calorifiers	S	1	R
143	3000 litre vertical calorifiers	S	1	R
144	300 litre horizontal calorifiers	S	1	R
145	500 litre horizontal calorifiers	S	1	R
146	1000 litre horizontal calorifiers	S	1	R
147	2000 litre horizontal calorifiers	S	1	R
148	3000 litre horizontal calorifiers	S	1	R
149	Condensate pump Ebara CMA.075 T	S	1	R
150	Condensate pump Ebara CMA.100 T	S	1	R
151	Condensate pump Ebara CMA.200 T	S	1	R
152	15mm brass angle globe valves	S	1	R
153	20mm brass angle globe valves	S	1	R
154	25mm brass angle globe valves	S	1	R
155	15mm 90° BSP thread steam elbows	S	1	R
156	20mm 90° BSP thread steam elbows	S	1	R
157	25mm 90° BSP thread steam elbows	S	1	R
158	15mm 90° BSP thread steam bends	S	1	R
159	20mm 90° BSP thread steam bends	S	1	R
160	25mm 90° BSP thread steam bends	S	1	R
161	15mm 90° weld on black elbows	S	1	R
162	20mm 90° weld on black elbows	S	1	R
163	25mm 90° weld on black elbows	S	1	R
64	15mm 90° weld on black bends	S	1	R
165	20mm 90° weld on black bends	S	1	R
166	25mm 90° weld on black bends	S	1	R
167	Key Steel 6mm	S	1	R
168	Key steel 8 mm	S	1	R
169	Key steel 10mm	S	1	R
170	Key steel 12 mm	S	1	R
171	2.5mm mild steel welding rods	S	1	R
172	PTFE thread tape	p/roll	1	R
173	M6 x 50mm mild bolts and nuts	S	1	R
174	M8 x 50mm mild bolts and nuts	S	1	R
175	M10 x 50mm mild bolts and nuts	S	1	R
176	M12 x 50mm mild bolts and nuts	S	1	R
178	M14 x 50mm mild bolts and nuts	S	1	R

C9.2 Price rates for servicing, repairs maintenance of the Steam and Condensate Reticulation and Various Mechanical Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
179	M16 x 50mm mild bolts and nuts	S	1	R
180	M20 x 50mm mild bolts and nuts	S	1	R
181	M6 x 100mm mild bolts and nuts	S	1	R
182	M8 x 100mm mild bolts and nuts	S	1	R
183	M10 x 100mm mild bolts and nuts	S	1	R
84	M12 x 100mm mild bolts and nuts	S	1	R
185	M14 x 100mm mild bolts and nuts	S	1	R
186	M16 x 100mm mild bolts and nuts	S	1	R
187	M20 x 100mm mild bolts and nuts	S	1	R
188	BSP thread reducing bushes 15-10mm	S	1	R
189	BSP thread reducing bushes 20-15mm	S	1	R
190	BSP thread reducing bushes 20-10mm	S	1	R
191	BSP thread reducing bushes 25-10mm	S	1	R
192	BSP thread reducing bushes 25-15mm	S	1	R
193	BSP thread reducing bushes 25-20mm	S	1	R
194	Square condensate tanks 300 litre	S	1	R
195	Square condensate tanks 500 litre	S	1	R
196	Square condensate tanks 1000 litre	S	1	R
197	Condensate tank level switches float type	S	1	R

C9.2 Price rates for servicing, repairs maintenance of the Steam and Condensate Reticulation and Various Mechanical Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
198	Condensate tank level switches liquid level 3 probes	S	1	R
199	Labour Technician per hour	S	1	R
200	Labour Technician per hour over time	S	1	R
201	Labour Technician per hour Sunday and Public Holidays	S	1	R
202	Labour Technician Assistant per hour	S	1	R
203	Labour Technician Assistant per hour over time	S	1	R
204	Labour Technician Assistant per hour Sunday and Public Holidays	S	1	R
205	Coded Welder per hour	S	1	R
206	Coded Welder per hour over time	S	1	R
207	Coded Welder per hour Sunday and Public Holidays	S		R
SUB-TOTAL RETICULATION				R

All unit prices that are not included or missed shall be determined through quotation proces with agreed amounts standardised and revised as part of this baseline costs
 All prices shall be priced to RSA currency excluding VAT

Al travelling rates will be calculated according to the AA rates for the specific month

BidderER'S SIGNATURE: _____

PRINT NAME: _____

NAME OF FIRM: _____

ADDRESS: _____

CODE _____

TELEPHONE NO: _____ CELL NO: _____

FAX NO: _____

E-MAIL ADDRESS: _____ DATE: _____

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Maintenance, Refurbishment, Replacement and Upgrades of the Boilers, Supply of Boiler Operators, Steam and Condensate Reticulation, Water Treatment on Boilers and Autoclaves, Autoclaves And Various Mechanical Equipment, Kitchen Equipment, Laundry Equipment and Tunnel Washers at various Institutions in the Free State Province Health Department for a Period 36 Months.

Part C10.1 Scope of Work - Steam and Condensate Reticulation

1 SCOPE OF CONTRACT

This Contract calls for the price rates for the servicing, maintenance, repairs and Statutory Inspections of the Steam and Condensate plant and auxiliary equipment in accordance with the requirements as laid down in the specifications. It, furthermore, entails the servicing, maintenance and repair of said installation. The systems other than the steam generating plant and auxiliary equipment covered by this Bidder\Contract are

1,1 the following:

- The Steam and Condensate Reticulation within the facility
- Statutory inspections and Hydraulic test of all Pressure Vessels in accordance with the Occupational Health and Safety Act and Regulations.
- Adherence to the Safety Regulations and membership on the Safety Committee at the institutions.
- Monthly meetings with Management of the Institutions.
- Monthly reports to the Department: Infrastructure Unit
- Supply of all lubricants and cleaning material needed.
- Supply of all hand tools and equipment needed for Contract.

1,2 Competent person

It will be the person appointed as such and who is on Site a promulgated under the Machinery and Occupational Safety Act No 6 of 1983.

The successful Bidderer shall be required to maintain the complete installation and equipment in a proper and safe operating condition, to clean, adjust and lubricate the equipment as required in terms of the Contract, repair or replace all electrical and mechanical parts as necessary due to wear and tear.

b) This shall include, but not limited to the following:

(viii) Examine the system in accordance with any applicable regulation framed under the Occupational Health and Safety Act 85 of 1993,

(ix) Properly maintain, adjust and keep the installation and equipment in a safe and proper operating condition at all times,

(x) Repair/replace all parts of the installation which may become necessary for the proper use and / or operation of the installation,

(xi) Examine, adjust and lubricate the complete installation, supply of all lubricants, replacement parts and the cleaning of material as required for proper maintenance of the equipment,

(xii) Any malfunction or defect occurring within a period of 14 days after any service or repair being executed will be for the account of the Contractor,

(xiii) Examine, periodically and when necessary, all devices and perform any statutory safety tests at or before the expiring of the required intervals

(xiv) Complete the services, maintenance or repair action report, which shall be submitted with any invoice(s).

Maintenance, Refurbishment, Replacement and Upgrades of the Boilers, Supply of Boiler Operators, Steam and Condensate Reticulation, Water Treatment on Boilers and Autoclaves, Autoclaves And Various Mechanical Equipment, Kitchen Equipment, Laundry Equipment and Tunnel Washers at various Institutions in the Free State Province Health Department for a Period 36 Months.

Part C10.2 Technical Specification - Steam and Condensate Reticulation

1 SERVICE REQUIRED

- 1,2 Replace existing cladding and lagging at various points and sizes, will be indicated on a site inspection
- 1,3 Replace existing steam traps at various points and sizes, will be indicated on a site inspection
- 1,4 Replace existing leaking steam piping and condensate piping will be indicated on a site inspection
- 1,5 Replace existing condensate pumps at various points and sizes, will be indicated on a site inspection
- 1,6 Replace cladding and lagging on central heating calorifiers, will be indicated during a site inspection
- 1,7 Prepare surfaces for painting these areas, will be indicated on the site inspection
- 1,8 Replace existing calorifiers at various points and plant rooms.
- 1,9 Replace condensate tanks at various points and plant rooms
- 1,10 Replace central heating calorifiers at various points and plant rooms
- 1,14 Replace central heating pumps at various points and plant rooms

NOTE: All above shall be done only after an inspection was conducted by the Representative of the Department: Infrastructure Unit

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Part C11.2 BILL OF QUANTITIES - KITCHEN EQUIPMENT

C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment				
ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
1	15mm Ball Float steam trap	S	1	R
2	20mm Ball float steam trap	S	1	R
3	20mm Ball Float steam trap	S	1	R
4	Steam trap repair kit 4,27mm orifice	S	1	R
5	Steam trap gasket sets	S	1	R
6	Steam trap repair kit 6mm orifice	S	1	R
7	Steam trap gasket sets	S	1	R
8	15mm Thermodynamic steam traps	S	1	R
9	20mm Thermodynamic steam traps	S	1	R
10	15mm sight glass window repair kits	S	1	R
11	20mm sight glass window repair kits	S	1	R
12	15mm flap type non return valve	S	1	R
13	20mm flap type non return valve	S	1	R
14	25mm flap type non return valve	S	1	R
15	15mm steam strainers brass	S	1	R
16	20mm steam strainers brass	S	1	R
17	25mm steam strainers brass	S	1	R
18	15mm S'S trim steam globe valve 16 bar	S	1	R
19	20mm S'S trim steam globe valve 16 bar	S	1	R
20	25mm S'S trim steam globe valve 16 bar	S	1	R
21	15mm ball valve	S	1	R
22	20mm ball valve	S	1	R
23	25mm ball valve	S	1	R
24	15mm cone faced steam unions	S	1	R
25	20mm cone faced steam unions	S	1	R
26	25mm cone faced steam unions	S	1	R
27	15mm steam barrel nipples	S	1	R
28	20mm steam barrel nipples	S	1	R
29	25mm steam barrel nipples	S	1	R
30	40mm steam barrel nipples	S	1	R
31	60mm steam barrel nipples	S	1	R
32	15mm copper tubing class 2 6,1m lengths	M	1	R
33	20mm copper tubing class 2 6,1m lengths	M	1	R
34	25mm copper tubing class 2 6,1m lengths	M	1	R
35	15mm heavy duty steam pipe 6,1m lengths	M	1	R
36	20mm heavy duty steam pipe 6,1m lengths	M	1	R
37	25mm heavy duty steam pipe 6,1m lengths	M	1	R
38	Valve gland packing 12,5mm roll	Roll	1	R
39	14 Valve gland packing 10mm roll	Roll	1	R
40	Valve gland packing 6mm roll	Roll	1	R
41	Graphite pipe jointing compound 5 kg container	Kg	1	R
42	PTFE thread sealing tape roll	S	1	R

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C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
43	Rope packing non asbestos 40mm x 30m roll	Roll	1	R
44	Rope packing non asbestos 25mm x 30m roll	Roll	1	R
45	Rope packing non asbestos 15mm x 30m roll	Roll	1	R
46	Packing material graphite impregnated wire reinforced sheets 1,2m x 2,4m x 1,5mm	sheet	1	R
47	Packing material graphite impregnated wire reinforced sheets 1,2m x 2,4m x 3,0mm	sheet	1	R
48	Acetylene 8,5kg cylinder Oxygen Industrial	Cyl	1	R
49	Quality 11,5kg cylinder	Cyl	1	R
50	Welding electrodes 2,5 x 5kg	Kg	1	R
51	Welding electrodes 3,2mm x 5 kg	Kg	1	R
52	Brazing rods 1,5mm x 5kg	Kg	1	R
53	Brazing rods 2,5mm x 5kg	Kg	1	R
54	Brazing flux 500g container	gram	1	R
55	Silver solder 100g	gram	1	R
56	Gear box OL, SAE 90, 5L container	5 litre	1	R
57	Motor oil, SAE 30 5L container	5 litre	1	R
58	Hydraulic oil condor 310 20L containers	Litre	1	R
59	Paraffin 20L containers	Litre	1	R
60	General Purpose grease 5kg containers	Kg	1	R
61	Bolts 6mm dia x 25mm long & nuts (HTS)	S	1	R
62	Bolts 8mm dia x 25mm long & nuts (HTS)	S	1	R
63	Bolts 8mm dia x 40mm long & nuts (HTS)	S	1	R
64	Bolts 10mm dia x 25mm long & nuts (HTS)	S	1	R
65	Bolts 10mm dia x 40mm long & nuts (HTS)	S	1	R
66	Bolts 10mm dia x 50mm long & nuts (HTS)	S	1	R
67	Bolts 12mm dia x 40mm long & nuts (HTS)	S	1	R
68	Bolts 12mm dia x 50mm long & nuts (HTS)	S	1	R
69	Fibre glass wool sheeting 50mm x 1,2m x 6m roll	S	1	R
70	Pressure gauge 100mm dia bottom entry x 10mm BSP thread range 0 to 2000 kPA	S	1	R

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C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
	CONVECTION OVENS			
71	Boiler elements	S	1	R
72	Oven element	S	1	R
73	Contactor	S	1	R
74	Overload	S	1	R
75	Boiler thermostat	S	1	R
76	Oven thermostat	S	1	R
77	Level switch	S	1	R
78	Door switch	S	1	R
79	Timer relay	S	1	R
80	Selector switch	S	1	R
81	Solenoid valve	S	1	R
82	Solenoid coil	S	1	R
83	Door seal	S	1	R
84	Door handle	S	1	R
85	Fan motor	S	1	R
86	Timer	S	1	R
	HEAVY DUTY STOVES			
87	3 Heat switch	S	1	R
88	Oven thermostat	S	1	R
89	Plate element	S	1	R
90	Plate complete	S	1	R
91	Oven element	S	1	R
92	Wiring harness complete	S	1	R
	TILTING PANS			
93	Thermostat	S	1	R
94	Element	S	1	R
95	Circuit breaker	S	1	R
96	Tilting wheel handle	S	1	R
97	Tilting wheel worm shaft	S	1	R
98	Tilting wheel gearbox	S	1	R
	15 BREAD SLICERS			
99	Blades	Set	1	R
100	V Belts	S	1	R
101	Bearings	S	1	R

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C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
	ACCESSORIES			
102	Cord	M	1	R
103	Plug	S	1	R
	TILTING POTS			
104	Thermostat	S	1	R
105	Boiler element	S	1	R
106	Contactor	S	1	R
107	Overload	S	1	R
108	Circuit breaker	S	1	R
	MIXERS			
109	Selector switch	S	1	R
110	Contactor	S	1	R
111	Overload	S	1	R
112	Bearings	S	1	R
113	Oil seal	S	1	R
114	Stop / Start button	S	1	R
	DISHWASHERS			
115	Boiler element	S	1	R
116	Contactor	S	1	R
117	Thermostat	S	1	R
118	Curtains	S	1	R
119	Spray arms	S	1	R
120	Selector switch	S	1	R
	PATATO PEELERS			
121	V Belts	S	1	R
122	Bearings	S	1	R
123	Bushes	S	1	R
124	Pulleys	S	1	R
125	On/Off switch	S	1	R
126	Regrit complete	S	1	R
	BLENDERS			
127	Bearings	S	1	R
128	Overload circuit breaker	S	1	R
129	Mechanical seal	S	1	R
130	Drive coupling	S	1	R

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C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
	FOOD PROCESSORS			
131	Selector switch	S	1	R
132	Contactors	S	1	R
133	Magnetic switch	S	1	R
134	Knife head	S	1	R
135	Bearings	S	1	R
136	RC circuit	S	1	R
137	Bushes	S	1	R
138	Buffers	S	1	R
139	Mechanical seal	S	1	R
	TOASTERS			
140	Element	S	1	R
141	Thermostat	S	1	R
142	Pilot light	S	1	R
143	On/Off switch	S	1	R
	ZIP HYDROBOIL URNS			
144	Thermostat	S	1	R
145	Hydro boil tap	S	1	R
146	Float kit	S	1	R
147	Cut out switch of pipe	S	1	R
148	Cut out switch orange wires	S	1	R
149	Straight element	S	1	R
150	L shape element	S	1	R
151	Pilot light	S	1	R
	MOBILE FOOD TROLLEYS			
152	Element top	S	1	R
153	16 Element bottom	S	1	R
154	17 Thermostat	S	1	R
155	Switch box	S	1	R
156	Top door	S	1	R
157	Bottom door	S	1	R
158	Bumper rail – PVC	M	1	R
159	200mm Plate mounted fixed caster – resilex	S	1	R
160	200mm plate mounted swivel brake castor	S	1	R

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C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
	MOBILE WARD BAIN MARES			
161	Element	S	1	R
162	Thermostat	S	1	R
163	Pilot light	S	1	R
164	Circuit breaker	S	1	R
165	Bumper rail – PVC	M	1	R
166	200mm Plate mounted fixed castor resilex	S	1	R
167	200mm plate mounted swivel brake castor	s	1	R
	BAIN MARES / HOT CUPBOARDS			
168	Energy regulator	S	1	R
169	Circuit breaker	S	1	R
170	Element	S	1	R
171	Thermostat	S	1	R
172	Pilot light	S	1	R
	ELNA PRESS			
173	Press cover	S	1	R
174	Handle set	S	1	R
175	Barrel shaft	S	1	R
176	On/Off light	S	1	R
177	Coil spring	S	1	R
178	Shock absorber	S	1	R
179	Thermostat	S	1	R
180	Element	S	1	R
	7.5 kg Speed Queen Washing machines			
181	Lid switch	S	1	R
182	Timer	S	1	R
183	Coin mechanism	S	1	R
184	Mixing valve	S	1	R
185	Motor	S	1	R
186	Pump belt	S	1	R
187	Spin belt	S	1	R
188	Idler pulley assembly	S	1	R
189	Motor switch	S	1	R
190	Pressure switch	S	1	R
191	Hub and seal kit	S	1	R
192	Pump assembly	S	1	R
193	Drain hose	S	1	R
194	Water supply hose	S	1	R
	7.5 kg Maytag washing machines			
195	Lid switch	S	1	R
196	Timer	S	1	R
197	Coin mechanism	S	1	R
198	Mixing valve	S	1	R
199	Motor	S	1	R
200	Pump belt	S	1	R

C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO.	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
201	Spin belt	S	1	R
202	Idler pulley assembly	S	1	R
203	Motor switch	S	1	R
204	Pressure switch	S	1	R
205	Hub and seal kit	S	1	R
206	Pump assembly	S	1	R
207	Drain hose	S	1	R
208	Water supply hose	S	1	R
	7.5 kg Clean American washing machines			
209	Lid switch	S	1	R
210	Timer	S	1	R
211	Coin mechanism	S	1	R
212	Mixing valve	S	1	R
213	Motor	S	1	R
214	Pump belt	S	1	R
215	Spin belt	S	1	R
216	Idler pulley assembly	S	1	R
217	Motor switch	S	1	R
218	Pressure switch	S	1	R
219	Hub and seal kit	S	1	R
220	Pump assembly	S	1	R
221	Drain hose	S	1	R
222	Water supply hose	S	1	R
	7.5 kg Whirlpool washing machines			
223	Lid switch	S	1	R
224	Timer	S	1	R
225	Coin mechanism	S	1	R
226	Mixing valve	S	1	R
227	Motor	S	1	R
228	Pump belt	S	1	R
229	Spin belt	S	1	R
230	Idler pulley assembly	S	1	R
231	Motor switch	S	1	R
232	Pressure switch	S	1	R
233	Hub and seal kit	S	1	R
234	Pump assembly	S	1	R
235	Drain hose	S	1	R
236	Water supply hose	S	1	R
	TULLIS SLUICE MACHINE			
237	Door solenoid	S	1	R
238	Door handle	S	1	R
239	Door seal	S	1	R
240	Door glass	S	1	R
241	Door hinge	S	1	R
242	Door micro switch	S	1	R

C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
243	Contactora forward	S	1	R
244	Contactora reverse	S	1	R
245	Water level switch	S	1	R
246	Drain exhaust valve	S	1	R

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C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
247	Drain exhaust hose	S	1	R
248	Inlet solenoid	S	1	R
249	Forward/Reverse timer	S	1	R
250	Program timer	S	1	R
251	Drum bearing	S	1	R
252	V-belt	S	1	R
	<u>INSTRUMENT WASHER</u>			
253	Contactor	S	1	R
254	Heater element	S	1	R
255	Drain pump	S	1	R
256	Pressure switch	S	1	R
257	Door seal	S	1	R
258	Drain exhaust hose	S	1	R
259	Program timer	S	1	R
	<u>7.5kg Speed Queen Tumble dryers</u>			
260	Timer relay	S	1	R
261	Contactor	S	1	R
262	Overload	S	1	R
263	Door switch	S	1	R
264	Motor	S	1	R
265	Drive chain/belt	S	1	R
266	Drive sprocket	S	1	R
267	Drive pulley	S	1	R
268	Idler pulley	S	1	R
269	Chain tensioner assembly	S	1	R
270	V belt	S	1	R
	<u>7.5 kg Maytag Tumble dryers</u>			
271	Timer relay	S	1	R
272	Contactor	S	1	R
273	Overload	S	1	R
274	Door switch	S	1	R
275	Motor	S	1	R
276	Drive chain/belt	S	1	R
277	Drive sprocket	S	1	R
278	Drive pulley	S	1	R
279	Idler pulley	S	1	R
280	Chain tensioner assembly	S	1	R
281	V belt	S	1	R
	<u>7.5 kg Clear American Tumble dryers</u>			
282	Timer relay	S	1	R
283	Contactor	S	1	R
284	Overload	S	1	R
285	Door switch	S	1	R
286	Motor	S	1	R
287	Drive chain/belt	S	1	R

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C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
288	Drive sprocket	S	1	R
289	Drive pulley	S	1	R

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C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
290	Idler pulley	S	1	R
291	Chain tensioner assembly	S	1	R
292	V belt	S	1	R
	7,5 kg Whirlpool Tumble dryers	S		R
293	Timer relay	S	1	R
294	Contactor	S	1	R
295	Overload	S	1	R
296	Door switch	S	1	R
297	Motor	S	1	R
298	Drive chain	S	1	R
299	Drive sprocket	S	1	R
300	Drive pulley	S	1	R
301	Idler pulley	S	1	R
302	Chain tensioner assembly	S	1	R
303	V belt	S	1	R
	COMPLETE INSTANT BOILING WATER HEATER UNITS SUPPLY AND INSTALL			
304	1,5 litre white epoxy 7 – 9 cups	S	1	R
305	2,5 litre white epoxy – 12 – 15 cups	S	1	R
306	5 litre white epoxy – 25 – 30 cups	S	1	R
307	7,5 litre white epoxy 36 – 45 cups	S	1	R
308	10 litre white epoxy 50 – 60 cups	S	1	R
309	15 litre white epoxy 75 – 90 cups	S	1	R
310	25 litre white epoxy 120 – 150 cups	S	1	R
311	Inline water softener to suit Hydro boils	S	1	R
	18 NEW SUPPLY OF LAUNDRY EQUIPMENT			
312	7,5 kg Washing machines	S	1	R
313	7,5kg Tumble dryer	S	1	R
	SERVICES	S	1	R
314	Service Band Saw Part 4, item 2.1	S	1	R
315	Service Bread Slicer Part 4, item 2.2	S	1	R
316	Service Rotary Toaster Part, item 2.3	S	1	R
317	Service Conveyor Toaster Part 4, item 2.4	S	1	R
318	Service Steam Cooking Pots, Part 4, item 2.5	S	1	R
319	Yearly service Steam Cooking pots Part 4, item 2.6	S	1	R
320	Service Electrical Cooking Pots Part 4, item 2.7	S	1	R
321	Service Dishwasher Part 4, item 2.8	S	1	R
322	Service Convection Ovens Part 4, item 2.9	S	1	R
323	Service Steam Urns Part 4, item 2.10	S	1	R
324	Service Electrical Urns Part 4, item 2.11	S	1	R
325	Service Tilting Frying Pans Part 4, item 2.12	S	1	R
326	Service Electrical Stoves Part 4, item 2.13	S	1	R
327	Service High Speed Fryers Part 4, item 2.14	S	1	R
328	Service Flat Top Grillers Part 4, item 2.15	S	1	R
329	Service Potato Peelers Part 4, item 2.16	S	1	R
330	Service Vegetable Washers Part 4, item 2.17	S	1	R

C11.2 Priced rates for servicing, repairs, maintenance of the Mechanical and Electrical Kitchen Equipment and Laundrette Equipment

ITEM NO:	SCHEDULED PARTS	UNIT	PROVISIONAL QUANTITIES	PRICE [EXT VAT]
331	Service Vegetable Cutters Part 4, item 2.18	S	1	R
332	Service Steam Bain Marie Part 4, item 2.19	S	1	R
333	Service Electrical Bain Marie Part 4, item 2.20	S	1	R
334	Service Food Mixers Part 4, item 2.21	S	1	R
335	Service Tilting Kettles Part 4, item 2.22	S	1	R
336	Service Porridge Maker Part 4, item 2.23	S	1	R
337	Service Food Trolleys Part 4, item 2.24	S	1	R
338	Service Kitchen Canopy Part 4, item 2.25	S	1	R
339	Service Hydro Boilers Part 4, item 2.26	S	1	R
340	Service Sluice Machines Part 4, item 2.27	S	1	R
341	Service Instrument Washers Part 4, item 2.28	S	1	R
342	Service Washing Machines Part 4, item 2.29	S	1	R
343	Service Elna Presses Part 4, item 2.30	S	1	R
	19 LABOUR RATES			
344	Labour Technician per hour	S	1	R
345	Labour Technician per hour over time	S	1	R
346	Labour Technician per hour Sunday and Public Holidays	S	1	R
347	Labour Technician Assistant per hour	S	1	R
348	Labour Technician Assistant per hour over time	S	1	R
349	Labour Technician Assistant per hour Sunday and Public Holidays	S	1	R
	SUB-TOTAL KITCHEN EQUIPMENT			R

All prices shall be priced to RSA currency excluding VAT

All travelling rates will be calculated according to the AA rates for the specific month

TENDERER'S SIGNATURE: _____

PRINT NAME: _____

NAME OF FIRM: _____

ADDRESS: _____

CODE _____

TELEPHONE NO: _____ CELL NO: _____

FAX NO: _____

E-MAIL ADDRESS: _____ DATE: _____

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Maintenance, Refurbishment, Replacement and Upgrades of the Boilers, Supply of Boiler Operators, Steam and Condensate Reticulation, Water Treatment on Boilers and Autoclaves, Autoclaves And Various Mechanical Equipment, Kitchen Equipment, Laundry Equipment and Tunnel Washers at various Institutions in the Free State Province Health Department for a Period 36 Months.

Part C12.1 Scope of Work - Kitchen Equipment

1 SCOPE OF CONTRACT

This contract calls for the price rates for the servicing, maintenance, repairs and Statutory Inspections and hydraulic test of the Kitchen Equipment as per attached list in accordance with the requirements as laid down in the specifications. It, furthermore, entails the servicing, maintenance and repair of said installation, in accordance with the requirements of the Gauteng, Provincial Government. The duration of the resulting

1,1 contract shall be for a period of three (3) years.

An unconditional guarantee period of two weeks after a service shall be enforced and no charge for calls

1,2 shall be levied during these two weeks provided the call is a direct result of a fault occurring on the unit serviced.

1,3 The contractor's servicing shall include testing, adjusting and rectifying of faults, as well as the cleaning of the plant room.

1,4 If breakdowns of the Kitchen Equipment do occur as a result of negligence on the part of the contractor, the

All servicing and repairs on the equipment as well as scheduled preparation of Kitchen Equipment for

1,5 inspections shall be carried out in such a manner to ensure that the requirements of the occupational Health and Safety Act (Act 85 of 1993) and any amendments to it is adhered to:

1,6 Attend monthly meetings with the Department

1,7 Submit quarterly written reports to the Department

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1,8 The Equipment and services covered by this Bidder / contract are:

- The Steam and Condensate Reticulation on the Equipment.
- 10 and 20 Pan convection ovens
- Tilting frying pans
- Bread slicing machines
- Food mixers
- Dishwashers
- Waste disposers
- Hospital Food trolleys
- Electrical and steam hot closets
- Electrical and steam bain mari's
- Vegetable washers
- Bread toasters
- Electric stoves
- Gas stoves
- Food warming cabinets
- Steam and Electrical cooking pots
- Steam and Electrical urns
- Gas and Electrical grillers
- Extraction canopies
- Meat slicing machines
- Potato peelers
- Food warming cabinets
- Industrial can openers
- Hydro Boilers
- Porridge makers
- Adherence to the Safety Regulations and membership on the Safety Committee at the Institutions.
- Monthly meetings with Management of the Institutions.
- Monthly reports to Department of Infrastructure Development.
- Supply of all lubricants and cleaning material needed.

NOTE: ALL WORK IN THIS CONTRACT SHALL BE DONE ACCORDING TO THE STANDARD QUALITY SPECIFICATION FOR STEAM, CONDENSATE RETICULATION, MARCH 2006 AND GENERAL ELECTRIC INSTALLATION MARCH 2003, OF THE DEPARTMENT. A COPY SHALL BE MADE AVAILABLE TO THE SUCCESSFUL Bidder ON REQUEST

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Part C12.2 Technical Specification - Kitchen Equipment

1 SERVICES TO BE CARRIED OUT

Monthly Reports with details of operational status of equipment must be handed in with the invoice for the monthly services per institution. Before checking / servicing any equipment ensure that the equipment is isolated and that lock-out signs are in place.

1.1 MONTHLY SERVICE OF BAND SAW

- Examine blades for any cracks and clean properly
- Check front assembly and clean
- Check back assembly and clean
- Check scrappers and clean properly
- Check top wheel and clean
- Check bottom wheel and clean
- Check blade guides and adjust if required
- Check motor for correct operation, clean cooling fan and inlet
- Check switch, check for loose electrical connections and repair
- Check V-belts and replace if required
- Enter service into log book
- Check that plant does not automatically starts up after power failure and rectify if required

1.2 MONTHLY SERVICE BREAD SLICER

- Check blades for cracks and clean properly
- Check bearings for any noise and stiffness
- Check switch and check for loose electrical connections and repair if required
- Check slides and adjust if required
- Check block assembly and clean properly
- Check motor for correct operation, clean cooling fan and inlet
- Check that slicers does not automatically starts up after power failure and repair if required
- Enter service into service log book

1.3 MONTHLY SERVICE OF ROTARY TOASTER

- Check elements for correct operation
- Check drive for correct operation and clean properly
- Check electrical connection for loose or burnt wires and repair accordingly
- Enter service into service log book

1.4 MONTHLY SERVICE OF CONVEYER TOASTER

- Check elements for correct operation
- Check drive for correct operation and clean properly
- Check electrical connections for any loose or burnt wires and repair accordingly
- Enter service into service log book

1.5 MONTHLY SERVICE OF STEAM COOKING POTS

- Check all control and drain valves for correct operation and clean properly
- Check safety valve for correct operation and adjust accordingly
- Check air vent for correct operation and clean properly
- Check trapping arrangement for any leaks, correct operation and repair accordingly
- Check for any water and steam leaks and repair
- Check all hinges and adjust
- Check mounting bolts and tighten if required
- Clean complete unit
- Check pressure gauge for correct operation
- Enter service into service log book

1.6 YEARLY SERVICE OF STEAM COOKING POTS

- Carry out a pressure test on the jacket of the steam pot to 1,1 times the working pressure and check for any telltale leaks

1.7 MONTHLY SERVICE OF ELECTRICAL COOKING POTS

- Check elements for correct operation
- Check thermostats for correct operation
- Check all switches and electrical connections for any loose and burnt wiring and rectify accordingly
- Check oil in jacket for correct level and top up or replace if required
- Enter service into service log book

MONTHLY SERVICES OF DISHWASHER

- Check pump motor for correct operation and clean
- Check pump impeller and clean properly
- Check gearbox and drivers for correct operation
- Check boiler for correct operation and de-scale if required
- Check tank element for correct operation
- Check boiler element for correct operation
- Check rinse arm for correct operation and clean properly
- Check jets (rinse and wash) and clean properly
- Check wash arm and clean properly
- Check door slides and clean properly
- Check drain valves for correct operation
- Check curtains and clean properly
- Check rack motor for correct operation and clean properly
- Check door switches for correct operation and rectify
- Check basket slides and clean properly
- Check baskets for cracks and clean properly
- Check thermostats 0-70° for correct operation
- Check all electrical connections, overloads etc. for any loose or burnt wiring and rectify accordingly
- Check for any steam and water leaks and repair
- Check steam trapping arrangements for correct operation and clean properly
- De-scale dishwasher basins
- De-scale jets
- De-scale electrical boilers
- De-scale complete interior of unit
- Enter service into service log book

1.8 MONTHLY SERVICE OF CONVECTION OVENS

- Check selection switch for correct operation
- Check timer for correct operation
- Check thermostat (0 - 300°) for correct operation
- Check door seals for any damage and replace if required
- Check door handle and hinges and adjust accordingly
- Check fan motor for correct operation and clean properly
- Check all electrical components for loose connections and repair accordingly
- Check P C relays for correct operation
- Check ball float for correct operation and clean properly
- Check heating elements for correct operation
- Check boiler elements for correct operation
- Check solenoid valves (motor) for correct operation and clean properly
- Check door micro switches for correct operation
- Check trolley for any wear and tear and clean properly
- Check for any steam and water leaks and repair properly
- De-scale boiler

- Enter service into service log book

1.9 MONTHLY SERVICE OF STEAM URNS

- Check heating coil for any leaks and repair
- Check trapping for correct operation and clean units properly
- Check all valves and fittings for any leaks and repair
- Check gauge glass and clean properly
- Check urn for leaks and repair properly
- De-scale urns
- Enter service into service log book

1.10 MONTHLY SERVICES OF ELECTRICAL URNS

- Check element for correct operation
- Check thermostat for correct operation
- Check switch for correct operation
- Check electrical connections for any loose or burnt wiring and repair accordingly
- Check draw-off cock for correct operation and clean properly
- Check urns for leaks and repair properly
- Enter service into service log book

1.11 MONTHLY SERVICE OF TILTING FRYING PANS

- Check elements for correct operation
- Check thermostat for correct operation
- Check wiring for any loose or burnt wiring and repair accordingly
- Check bearings and grease properly
- Check tilting mechanism and rectify if required
- Check all moving parts for wear
- Check lid and hinges and adjust if required
- Check pans for any damage
- Clean the complete unit properly
- Enter service into service log book

1.12 MONTHLY SERVICE OF ELECTRICAL STOVES

- Check elements for correct operation
- Check thermostats for correct operation
- Check door springs, hinges and adjust accordingly
- Check door seals for any damage and clean properly
- Clean stove properly
- Enter service into service log book

1.12 MONTHLY SERVICE OF HIGH SPEED FRYERS

- Check elements for correct operation
- Check thermostats for correct operation
- Check contactors for correct operation and clean properly
- Check circuit breakers for correct operation
- Check drain valve for correct operation and clean properly
- Check for oil leaks and repair
- Clean the fryer properly
- Enter service into service log book

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- 1.13 MONTHLY SERVICE OF FLAT TOP GRILLER
- Check elements for correct operation
 - Check contactor for correct operation and clean properly
 - Check switches for correct operation
 - Check thermostats for correct operation
 - Check boiling plate for correct operation and damage
 - Clean unit properly
 - Enter service into service log book

1.14 MONTHLY SERVICE OF POTATO PEELERS

- Check water inlet and clean properly
- Check drain and open and clean properly
- Check grit and clean properly
- Check door handle and adjust if required
- Check door seal for any damage
- Check top lid seal
- Check motor for correct operation
- Check all electrical switches etc. for correct operation
- Clean unit properly
- Enter service into service log book

1.15 MONTHLY SERVICE OF VEGETABLE WASHERS

- Check pump and motor for correct operation
- Check water jets and clean properly
- Check all electrical switches, connections, starters etc. for any loose or burnt wiring and repair
- Check water inlet and clean
- Check drain and open properly
- Clean the unit properly
- Check for any water leaks and repair
- Enter service into service log book

1.16 MONTHLY SERVICE OF VEGETABLE CUTTER

- Check blades for any damage
- Check 2 speed switch for correct operation
- Check bushes
- Check motor for correct operation
- Check feeder and repair properly
- Clean the unit properly
- Enter service into service log book

1.17 MONTHLY SERVICE OF STEAM BAIN MARIE

- Check heating coil for any leaks and repair
- Check trapping arrangement for correct operation and clean properly
- Check control valves for correct operation
- Check drains and open properly
- Check water supply
- Check sliding doors, clean grooves properly
- Check for any water and steam leaks and repair properly
- De-scale bowl of Bain Marie
- Enter service into service log book

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1.18 MONTHLY SERVICE OF ELECTRICAL BAIN MARIE

- Check heating elements for correct operation
- Check thermostats for correct operation
- Check water supply and drains and open and clean properly
- Check sliding doors and clean slides properly
- Check electrical connections for any loose and damage wiring and repair properly
- Check for any water leaks and repair properly
- Clean the unit properly
- Enter service into service log book

1.19 MONTHLY SERVICE OF FOOD MIXERS

- Check switch for correct operation
- Check motor for correct operation
- Check gearbox (noise) for correct operation
- Check gearbox oil level and top up if required
- Check accessories and bowls and clean properly
- Check that food mixers does not start-up automatically after a power shut down and rectify if required
- Check operation of safety cut-outs and adjust accordingly
- Check if safety signs are in place
- Clean the unit properly
- Enter service into service log book

1.20 MONTHLY SERVICE OF TILTING KETTLES

- Check tilting mechanism for correct operation
- Check bearings for any leaks and repair
- Check trapping arrangement for correct operation and clean properly
- Check steam supply for correct pressure
- Check water supply for correct pressure
- Check for leaks (steam, condensate or water) and repair properly
- Clean the unit properly
- Enter service into service log book

1.21 MONTHLY SERVICE OF PORRIDGE MAKER

- Check tilting mechanism for correct operation
- Check bearings and grease properly
- Check gearbox for correct operation
- Check oil level and top up if required
- Check all electrical switches and connections for any loose or burnt wiring and repair accordingly
- Clean the unit properly
- Enter service into service log book

1.22 MONTHLY SERVICE OF FOOD TROLLEYS

- Check all casters
- Check doors and hinges and adjust accordingly
- Check general conditions and clean properly
- Check all electrical connections, elements, switches etc. for any loose or burnt wiring and repair accordingly
- Enter service into service log book

1.23 MONTHLY SERVICE OF KITCHEN CANOPY

- Check exhaust fan
- Check all electrical connections for any loose or burnt wiring and repair accordingly
- Clean canopy properly
- Clean exhaust fans and flues
- Clean filter elements
- Clean canopy drain channels
- Check support hinges
- Enter service into service log book

1.24 MONTHLY SERVICE OF HYDRO BOILERS

- Check drain off valve for leaks and repair
- Check water filler float for operation and adjust and clean
- Check scale build up in main tank and descale when needed
- Check all electrical connections for any loose or burnt wiring and repair accordingly
- Check all water connections for any leaks and repair
- Clean Hydro Boiler in general
- Enter service into service log book