


Annexure 5 – Boiler Name Plate Data (photograph taken at project site)



Boiler Data Sheet

 WALCHANDNAGAR INDUSTRIES LIMITED		Date: 17-May-04		
DATA SHEET		Prep. By: A. Tripathi		
Project:	18 MW Biomass Based Power Plant	Appd. By: S.V. Garad		
Customer:	M/S Raghu Rama Renewable Energy Ltd.	Total Sheet: 8		
Consultant:	Aquatherm Engineers Consultants (India) Pvt. Ltd.	Revision:		
Supplier:	Walchandnagar Industries Ltd.	Rev. Date:		
S.No.	Description	Unit	Julia flora	Imported Coal
	Type of Boiler		Bi Drum Traveling Grate	
	Supporting arrangement		Top Supported	
1	MCR capacity of the boiler	TPH	80	
2	Steam Pressure at SHO	Kg/cm ² g	66	
3	Steam temperature at SHO	°C	500 ± 5	
4	FW inlet temperature	°C	150	
5	GCV of the fuel	Kcal/kg	3800	6100
6	Efficiency on GCV	%	62 ± 1	64 ± 1
7	Fuel feed	Kg/Hr	11175	10500
8	Excess air	%	30	25
9	Net heat release rate	Mkcal/Hr m ²	0.045	0.045
10	EPRS loading	Mkcal/Hr m ²	0.15	0.15
11	Volumetric loading	Mkcal/Hr m ³	0.119	0.116
12	Residence time of gas	sec	5.7	4.9
13	Gas flow	Kg/Hr	103573	125505
14	Air flow	Kg/Hr	86957	116747
15	Gas temperature profile			
15.1	Furnace outlet	°C	890 ± 10	895 ± 10
15.2	Superheater Stage II outlet	°C	725 ± 10	755 ± 10
15.3	Superheater stage I outlet	°C	565 ± 10	620 ± 10
15.4	Bank outlet	°C	359 ± 10	380 ± 10
15.5	Economiser outlet	°C	220 ± 10	240 ± 10
15.6	Air heater outlet	°C	150	150
16	Air temperature profile			
16.1	Air heater inlet	°C	30	30
16.2	Air heater outlet	°C	165	165
17	Gas side pressure drop			
17.1	Furnace	mmWC	3	3
17.2	Superheater	mmWC	3	3
17.3	Boiler bank	mmWC	3	3
17.4	Economiser	mmWC	50	73
17.5	Air heater	mmWC	28	40
17.6	ESP	mmWC	25	25
17.7	Ducting & Dampers	mmWC	33	33
17.8	Total	mmWC	145	180
18	Airsides pressure drop			
18.1	Grate	mmWC	30	30
18.1	Air heater	mmWC	72	124
18.2	Ducting & Dampers	mmWC	23	23
18.3	Total	mmWC	125	177
19	Design ambient conditions			
19.1	Design temperature	°C	30	
19.2	Relative humidity	%	60	

EPRS -

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Boiler Inspector Test Certificates

1st Provisional Order

No. 39/BC/2004-05 **FORM V.**
[Regulation 155 (c).]
PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOILERS ACT, 1923.

M/s Raghu Rana Renewable Energy Ltd, Rambari V.
Parasakudi Taluk, Rayachoti Dist.
are hereby permitted to use the Water tube Boiler (Registry No. New)
Rating A559 kg/cm²
made by M/s. Walchandnagar Industries, Pune
and bearing maker's number BT-452 at a maximum pressure of 7.6 kg/cm² kg.
per square inch/Kg. per square C.M. pending the issue or refusal of a certificate within six months
from the date thereof after which period this order will become void.
Valid from 17-09-2004 to 16-03-2005
Dated: 17-09-2004

Dy. Chief Inspector of Boilers,
BHEL Circle,
Tiruchirappalli - 620 014.

N.B.—This order must be produced on demand by any authorized person and surrendered to the Chief Inspector on receipt of orders.

C I B 4—138 Bks —6-7-83 (G P Ms-I)

1st Provisional Order

No. 82/BC/2004-05 **FORM V.**
[Regulation 155 (c).]
PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOILERS ACT, 1923.

Raghu Rana Renewable Energy Ltd, Rambari Village,
Parasakudi Taluk, Rayachoti Dist.
are hereby permitted to use the Water tube Boiler (Registry No. New)
Rating A559 kg/cm²
made by Walchandnagar Industries, Pune
and bearing maker's number BT-452 at a maximum pressure of 7.6 kg/cm² kg.
per square inch/Kg. per square C.M. pending the issue or refusal of a certificate within six months
from the date thereof after which period this order will become void.
Valid from 17-09-2004 to 16-03-2005
Dated: 16-03-05

Dy. Chief Inspector of Boilers,
BHEL Circle,
Tiruchirappalli - 620 014.

N.B.—This order must be produced on demand by any authorized person and surrendered to the Chief Inspector on receipt of orders.

C I B 4—138 Bks —6-7-83 (G P Ms-I)

No. A3) BC) 2005-06

FORM V.

[Regulation 155 (c).]

PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOILERS ACT, 1923.

Raghu Rama Renewable Energy Ltd, Pambur Village,
Paramakudi Taluk, Ramnagar Dist.

are hereby permitted to use the Water Tube Boiler (Registry No. _____)

Rating A559 Kg/cm²

made by Walchandnagar Industries, Pune

and bearing maker's number BT-452 at a maximum pressure of 76 kg/cm²

per square inch/Kg. per square C.M. pending the issue or refusal of a certificate within six months from the date thereof after which period this order will become void.

Valid from 30-09-2005 to 29-03-2006

Dated: 30-09-2005

Dy. Chief Inspector of Boilers
BHEL Circle,
Madrachappalli - 620 014.

N.B.—This order must be produced on demand by any authorized person and surrendered to the Chief Inspector on receipt of orders.

C.I.B. 4-25 Bks.—11-10-99 (G.C.P. Ch. 79.)

No. 83) BC) 2005-06

FORM V.

[Regulation 155 (c).]

PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOILERS ACT, 1923

Raghu Rama Renewable Energy Ltd, Pambur Village,
Paramakudi Taluk, Ramnagar Dist.

are hereby permitted to use the Water Tube Boiler (Registry No. _____)

Rating A559 Kg/cm²

made by Walchandnagar Industries, Pune

and bearing maker's number BT-452 at a maximum pressure of 76 kg/cm²

per square inch/Kg. per square C.M. pending the issue or refusal of a certificate within six months from the date thereof after which period this order will become void.

Valid from 06-03-2006 to 05-09-2006

Dated: 06-03-06

Dy. Chief Inspector of Boilers
BHEL Circle,
Madrachappalli - 620 014.

N.B.—This order must be produced on demand by any authorized person and surrendered to the Chief Inspector on receipt of orders.

C.I.B. 4-25 Bks.—11-10-99 (G.C.P. Ch. 79.)

No. 385/BC 2005-06

FORM V.

[Regulation 155 (c).]

PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOILERS ACT, 1923

Raghurama Renewable Energy Ltd
Pambus Village, Paramathadi TE
are hereby permitted to use the Water tube Boiler (Registry No. _____)
Rating 4559 kg/cm²
made by Wahchandnagar Industries, Pune
and bearing maker's number BT-452 at a maximum pressure of 76 kg/cm²
per square inch/Kg. per square C.M. pending the issue or refusal of a certificate within six months
from the date thereof after which period this order will become void.
Valid from 08-09-2005 to 05-03-2007
Dated: 04-09-2005

N.B.—This order must be produced on demand by any authorized person and surrendered to the Chief Inspector on receipt of orders.

C.I.B. 4—25 Bks.—11.10.99 (G.C.P. Ch. 79.)

No. 85/BC 06-07

FORM V.

[Regulation 155 (c).]

PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOILERS ACT, 1923

Raghurama Renewable Energy Ltd Pambus Village
PARAMATHADI TE - 623707
are hereby permitted to use the Water tube Boiler (Registry No. New)
Rating 4559 kg/cm²
made by Wahchandnagar Industries, Pune
and bearing maker's number BT-452 at a maximum pressure of 76 kg.
per square inch/Kg. per square C.M. pending the issue or refusal of a certificate within six months
from the date thereof after which period this order will become void.
Valid from 7.3.07 to 6.4.07 Purs 57
Dated: 7th Mar 07

N.B.—This order must be produced on demand by any authorized person and surrendered to the Chief Inspector on receipt of orders.

C.I.B. 4—25 Bks.—11.10.99 (G.C.P. Ch. 79.)

II. Provisional Order Pending Steam Test
No 42/B/107-08

FORM V.

[Regulation 155 (c).]

PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOILERS ACT, 1923.

M/s. Raghu Ram Renewable Energy Ltd.
Panipat - Panipat (Hk) Ramnathapuram District

are hereby permitted to use the Water Tube Boiler (Registry No.)

Rating 4559 sqm

made by Walchandnagar Industries Ltd. Panipat

and bearing maker's number P-7-452 at a maximum pressure of 76 kg/cm²

per square inch/Kg. per square C.M. pending the issue or refusal of a certificate within six months

from the date thereof after which period this order will become void.

Valid from 7-9-07 to 6-3-08

Dated: 6-9-07

69 g
Deputy Director of Boilers

In Charge of Boilers,

Tiruchirappalli-620 014.

N.B.—This order must be produced on demand by any authorized person and surrendered to the Chief Inspector on receipt of orders.

C.I.B. 4—138 Bks.—6-7-83 (G.P., Ms. I)