<u>Annexure 5 – Boiler Name Plate Data (photograph taken at project site)</u>

WALCHANDNAGAR TPH CAPACITY : 80 BOILER NUMBER : 452 Kg/CM²G PRESSURE : 66 : 2004 YEAR MFG. ·C : 500 TEMP.

Boiler Data Sheet

68	WALCHANDNAGAI		MTED	Date	17-May-04
CHAMONAGAR		DATA SHEET Pres By A Tripath A			
ojećt		V Biomass Based Power Plant Appd By: IS V Garad 24			
stomer		Raghu Rama Renewable Energy Ltd. Total Sheet 8			
onsultant: toplier	Aquatherm Engineers Constitta Watchandnagar Industries Ltd	The second			
S.No.	Description	1. 11.11		Rev. Data	1
- 4741 V.	Type of Boiler	Unit	Julia flora		orted Coal
	Supporting arrangement			um Traveling	
1 .	MCR capacity of the boiler	TPH		Top Supporte 80	a
2	Steam Pressure at SHO	Ka/cm ² a	11.22	66	
3	Steam temperature at SHO	"C	500 ± 6		
4	FW inlet temperature	°C	150		
5	GCV of the fuel	Kcal/kg	3800	and the second se	6100
5	Efficiency on GCV	95	82± 1		34z1
	[Fact freed		1 7 1 7 5	1	10150
8	Excess an	%	30	-	-25
9	Net heat release rate	Mkcal/hr m ²	0,046		0,045
10	EPRS loading	Mkcal/hr m*	0.15	1	0.15
11	Volumetric loading	Mkcal/hr m	0.119		0.116 -
12	Residence time of gas	Sec	5.7		4.9
13	Gas flow	rigitir	103573	1	25505
14	Air flow	Kg/Hr	86957	1	16747
15	Gas temperature profile				
15,1	Furnace outlet	Du C	890±10	8	95110
15.2	Superheater Stage II oulet	^o C	725110	7	755±10
15.3	Superheater stage I outlet	°C	565±10	E	520±10
15.4	Bank outlet	°C	359±10		380±10
15.5	Economiser outlet	°C	-220±10	:	40±10
15.6	la leater outlet	°C	150	1	150
16	// temperature profile				
16.1	Au heater inlet	^o C	30	T	30
16.2	Air heater outlet	°C	165		165
17	Gas side pressure drop	a pod some som de some of	1		
17.1	Funace	mmWC	3	1	3
17.2	Superheater	mmWC	3		3
17.3	Boller bank	mmW/C	3	1	3
17.4	Economiser	mmWC	50		73
17.5	Air heater IESP	mmWC	28		40
17.5	Ducting & Dampers	mmVVC	25		25
17.8	Total	OWmm of mmWC	145		33
18	Airside pressure drop	1 UNITARY	145		100
18.1	Grate	mmWC	30		30
18.1	Air heater	mmWC	72		124
18.2	Ducting & Dampers	mmWC	23		23
18.3	Total	.mmW/C	125		177
19	Design ambient conditions				
19.1	Design temperature	°C		30	
	Relative humidity	%		60	
		F	PRS -		

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Boiler Inspector Test Certificates

Ist Porrisural Order	
No. 39 BC 2004-05 FORM V. [Regulation 155 (0).]	
PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOI	LERS AC1, 1923.
1915 Raighu Raina Renewable Energy Al Parangeudi Daluk, Rainnad Dist are hereby permitted to use the Ivalla Luka Boiler (Registr)	No. New
Rating 4559 84 202	and the second
made by M/2 holdband neg on Tindustries Rece	the second s
made by http://www.cad.ocad.org.com	TOKOLOSS HA
and bearing maker's number <u>BT-A52</u> at a maximum pres	sure ofsure months
per square inch/Kg. per square C.M. Pending the issue or refusal of a ci	ertificate within six months
from the date thereof after which period this order will become void. Valued 1000 17-09-2004 F 16-03-2005	Dy Chief Industrie Hall
Dated: 17-09-2004	Inspector of Bollers. 994
- 15 NG D C	
No. 82 BC DUNA 05 FORM V.	
No. 82 BC RWA V.	
[Regulation 155 (c).] PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BC	DILERS ACT, 1923.
PROVISIONAL ORDER ORDER SECTION OF THE INDIAN	- hon Village.
Raghukana Konsalile Eserge Hd, Pa Pasana kudi Talul, Rassonad De	2020211-41-41
Hasanahudi Julul, Kassona h	al Mend
are hereby permitted to use the Line by Line Boiler (Registi	ry No.
Parting AD59 & PD	Provide the second s
made by Walcha notragan Josetustries, Ru	TI Lale 7
and bearing maker's number BT- H52at a maximum pre	ssure of 10 12 10 K
per square inch/Kg. per square C.M. pending the issue or refusal of a	certificate within six month
the second the order will become void	11-00-
From the date thereof after which period this ofder will decome to a	Di Dimole
Dated: 16-03-05	BHEL Circle
N.B This order must be produced on tomand by any authorized person and surre receipt of orders.	ndered the the spinis regerons

C I B 4-138 Bks -6-7-83 (G P Ms+1)

No H31 FORM [Regulation 155 (c).] PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOILERS ACT. 1923. Laste Rama Met. astaly NE194 Bull are hereby permitted to use the 3 64 68 Boiler (Registry No 4557 Rating made by Would have BT AB. and bearing maker's number. at a maximum pressure of_ J kp. 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. Vacinal targer de Dated : 30 - 09 - 200 5 Dyl DipertaspectBoblesailers BHEL Gircle N.B. - This order must be produced on demand by any anthroized person and surrendered to be their inspector on receipt of orders. C.I.B. 4-25 Bks.-11-10-99 (G C P Ch. 79.) No. 33) BC 2005-00 FORM [Regulation 155 (c).] PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BCILERS ACT, 1923 Raghe Rama Renewable 1tal Pap bus VI l'age, ac ale Parama kudu Jaly k Doi bad are hereby permitted to use the Males hy be Boiler (Registry No. A559 18m Rating made by and Nagan -ordustries, and bearing mak r's number___ BT 452 Cokg. at a maximum pressure of 164 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. tool - po - 70 or Jail + 0 - 10 and have Dated : 06 - 03 - 06 Dy. ChiefinspectoBall Ballers BHEL Circle. N.B. -This order must be produced on demand by any authorized person and surrenderriduching falle of the person on receipt of orders. C 1 B 4-25 Bks -- 11 10.99 (G C P Ch. 79.)

No. 38 BC DAWE-Ob

FORM V.

0.4 (80 TI

[Regulation 155 (c).]

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

Kagnisana Keninave maggina	
Parphies Village, Pasanopladi TK	
are hereby permitted to use the halo lin be Boiler (Regist	ry No)
Rating H559 Soyon	
made by Nalchand ang as Induction the and bearing maker's number <u>BT-452</u> at a maximum pre-	al value
and bearing maker's number 87-452 at a maximum pro	ssure of 10 kg1(Rg
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. Value Normob -09-2006 TO 05-03-2007	Atonto
Dated: 08-09-2.006	By Ghieldn pector in Balle AT
N.BThis order must be produced on demand by any authorized person and surre receipt of orders	ndered THUCH THE ADD MIL 1828 995 01
C + P + 25 PL- 11 10 99 (C C P C) 79 1	

No. 89/30/06 52 FORM V. (Regulation 155 (6).) PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BCILERS ACT, 1923 Ragurana Renewcl Gragg CM Pom Ban Villeri panimy or 1001 R. 623707 are hereby permitted to use the water add. Rating FS5955. made by toled and store from the Boiler (Registry No. Men) and bearing maker's number B7-452 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 for the add of a former form the date thereof after which period this order will become void for the add of the former form the date thereof after which period this order will become void for the add of the former for former former

C I B 4-25 Bks -11 10.99 (G C P Ch 79.)

IL Provisional Order Pending Steam Test FORM V. 1 No 42/Bc/07-00 [Regulation 155 (6).] PROVISIONAL ORDER UNDER SECTION 9 OF THE INDIAN BOILERS ACT, 1923, Pile Raghu Rame Republic (pargy Ltd. Jambor - Paramakuai (T.K.) RamanaThapuran District are hereby permitted to use the Water Tube - Boiler (Registry No._____) Rating (FF9 Sally made by plandand papar formatives 1 ta Fall and bearing maker's number ______ ETER EE _____at a maximum pressure of ______76_kg.cm-

 and bearing maker's number
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Valid from 7-9-07 to 6-3-08 Dated: 6-9-07 N.B.—This order must be produced on demand by any authorized person and surrendered to the Chief Inspector on receipt of orders. 69.9 Deputy Director of Bollers 1 Inspectorized person and surrendered to the Chief Inspector on C 1.8. 4-138 Bks.-6-7-83 (G P , Ms. 1)