

# नॉर्थ ईस्ट्रर्न इलैक्ट्रिक पावर कॉरपोरेशन लिमिटेड

### NORTH EASTERN ELECTRIC POWER CORPORATION LTD.

(A Govt. of India Enterprise)

Miniratna Category - I

OFFICE OF THE HEAD OF PROJECT 135 MW AGTCCPP, NEEPCO LTD., RAMCHANDRANAGAR, TRIPURA (WEST), Ph. No.0381-2391269, Fax No. 0381-2091268

Email: hopofficeagtp@gmail.com

DATE: 11/04/2017

NO. NEEPCO/AGTCCPP/HOP/T-25(D)/VOL-I/2017-18/ 05

To,

The Principal Chief Conservator of Forests(C), Govt. of India, Ministry of Environment & Forests, North Eastern Regional Office, Low-U-Sib, Lumbatngen, Near MTC Workshop, Shillong - 793 021.

> Sub: Agartala (Open Cycle) Gas Turbine Plant at Ramchandrnagar, Tripura – Six Monthly Report on status of Environment Clearance (1st Oct, 2016 to 31st March, 2017).

Sir,

This has reference to the Office Memorandum No.J-1311/1/92-IA Dtd.23/01/1992 of the MOE&F, Govt. of India conveying the Environment Clearance and adherence to the various referred conditions, the Status Report of compliance on conditions by this Project are as under :-

SI. No.	Stipulations as brought out under Memorandum No.J- 13011/1/IA Dtd.23/01/1992 of the MOE&F, Govt. of India	Status of compliance by Agartala Gas Turbine Combined Cycle Power Plant of NEEPCO
2(i)	Only natural gas is used in the main feed stock.	Only natural gas is used in the main feed stock.
(ii)	Zero discharge concepts with respect to liquid effluents may be followed and as such no liquid effluent will be allowed to be discharged in the water bodies. Treated liquid effluent should be used/recycled in the plant/irrigation of the green belt/agricultural fields etc.	After commissioning of STGs in 2015-16 liquid effluent is generated and discharged in environment after proper treatment. A scheme is already envisaged to recycle the treated effluent water.
(iii)	Adequate steps should be taken for presentation and control of fire and explosion hazards likely to be caused due to storage and used of inflammable materials like natural gas.	Fire protection system for machine already exists. Fire tenders from Tripura State Fire Service Stationed in Plant area all the round to combat fire.
(iv)	Affected families due to acquisition of land should be properly compensated in consultation with the State Govt.	The land has been purchased directly from the Govt. of Tripura and no families have been affected due to the acquisition.
(v)	The NOX emissions should be exceed the specified standards of 50 ppm. As the site is located within 25 km. of the sanctuary.	The NOX emission is below 50 ppm.

Regd. Office: Brookland Compound, Lower New Colony, Shillong - 793 003 Phone No. CMD's Office (0364) 2224487/2226453, Fax - 0364-2226417

(vi)	The gaseous emissions from various units should conform to the standards prescribed by the concerned authorities from time to time.	
	At no time the emission level should be beyond the stipulated standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should be shutdown and should not be restarted until the control measure are rectified to achieve the desired standard efficiency.	These parameters are within stipulated norms.
(vii)	Adequate No. of Monitoring stations should be provided in consultation with the state Pollution control Board. Further, stack emissions should be monitored periodically. The date of stack emissions and ambient air quality should be sent to the State Pollution Control Board once in 3 months and to this Ministry once in 6 months.	Action has been taken to monitor. Quality of water is monitored at regular interval. There is minimum sound noise beyond the Power House.
(viii)	A green belt of adequate width not less than 100 meters) and density should be provided all around the Power station.	A green belt with an average width of 100 meters around Power Station including office and Colony Complex with plantation of 44,500 (approx.) plants are maintained.
(ix)	A separate Environment Management Cell with suitably qualified staff to carry out the various functions should be set up under the control of Senior Executives, who will report directly to the Head of the Organisation.	An Environment Management Cell is working in the Plant.
3.	Adequate financial provision should be made for implementation of these stipulations and the details of such provisions communicated to this Ministry within three months Financial provisions so made will not be utilized for any other purpose.	Funds are available.

We are also enclosing herewith the test reports (as given below) which was carried out by the Green Tech Environmental Engineer & Consultants, Guwahati in the month of March, 2017. A soft copy (in CD) of the above is enclosed for your kind reference please.

- 1) Test Report of Sound Level Monitoring.
- 2) Test Report of Ambient Air.
- 3) Analysis Report of Fuel Gas GT-1, GT-2, GT-3 & GT-4.
- 4) Water Test Report.

Assuring our best commitments.

Thanking you,

Enclo: As stated above.

Yours faithfully,

GM(E/M)-Head of Project, AGTCCPP, NEEPCO Ltd.,

R.C. Nagar, Tripura (West).

CIN NO. U40101ML1976GO1001658

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House No-11, Champaknagar, Narayan Path, Bhetapara, Guwahati-781028, www.greentecheec.in Telefax -0361 2300278 Mobile: 9435046677, 9954089052, E-mail: green\_pranjal@hotmail.com, info@greentecheec.in

#### **TEST REPORT**

Test Report No: GEEC/FL/22/2017/03/02		Date of Reporting:	11/03/2017		
Customer Name:	Agartala Gas Turbine Power Plant		Lab. ID No.:	GEEC/AA/2017/03/02	
Customer Address:	Agartala Gas Turbine Power Plant Ramchandranagar, PO NEEPCO, Agartala, Tripura(W) 79900		Date of Sampling:	07/03/2017 to 08/03/2017	
Sampling Location:	Near existing control room		Duration:	24 hours	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
Sampling Condition:	In GF/A, PTFE Filt Plastic Bottle	er Paper &	Sample Receipt Date:	09/03/2017	
Humidity	Max.	Min.	Ambient Tenenenature	Max.	Min.
riamaty	62%	49%	Ambient Temperature:	28.1°C	18.4°C
Equipments Details:	Ecotech, RDS AAS & ADS PM Sample		Test Start Date:	09/03/2017	
Monitored By:	Mr. P. Talukdar		Test End Date:	11/03/2017	

#### AMBIENT AIR QUALITY

### Sampling and Analysis carried out as per GEEC/SOP/01

SI. No.	Parameters	Unit	Results	Limits	<b>Test Method</b>
1	Particulate Matter (PM <sub>10</sub> )	μg/m³	58	100	IS 5182(23)
2	Particulate Matter (PM <sub>2.5</sub> )	μg/m³	35	60	CPCB Guidelines
3	Sulphur Dioxide (SO <sub>2</sub> )	μg/m³	7	80	IS 5182(2)
4	Nitrogen Dioxide (NO <sub>2</sub> )	μg/m³	15	80	IS 5182(VI)
5	Lead (Pb)	μg/m³	<0.01	1	IS 5182(22)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of Report\*\*\*\*\*\*\*\*\*\*\*\*\*

Authorised by: Lab -in-Charge

Blahon

(Dr. Belinda Lahon)

The parameters tested on the specific date are found to be within the NATIONAL AMBIENT AIR QUALITY STANDARDS, CPCB NOTIFICATION DATED 18TH NOVEMBER, 2009.

<sup>\*</sup> The results relate only to the item tested.

<sup>\*</sup> The test report shall not be reproduced except in full, without written approval of the laboratory .

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#### **TEST REPORT**

Test Report No:	GEEC/FL/22/2017/03/01		Date of Reporting:	11/03/2017	
Customer Name:	Agartala Gas Turbine Power Plant		Lab. ID No.:	GEEC/AA/2017/03/01	
Customer Address:	Agartala Gas Turbine Power Plant Ramchandranagar, PO NEEPCO, Agartala, Tripura(W) 79900		Date of Sampling:	06/03/2017 to 07/03/201	
Sampling Location:	Guest House		Duration:	24 hours	
Sampling Condition:	In GF/A, PTFE Filter Paper & SP Plastic Bottle		Sample Receipt Date:	09/03/2017	
Humidity	Max.	Min.	Ambient Temperature	Max.	Min.
Trainlaity	72%	50%	Ambient Temperature:	26.3°C	16.8°C
Equipments Details:	Ecotech, RDS AAS Sampler 217 BL & ADS PM Sampler		Test Start Date:	09/03/2017	
Monitored By:	Mr. P. Talukdar		Test End Date:	11/03/2017	
		process years and the fac-	<u> </u>		

#### AMBIENT AIR QUALITY

### Sampling and Analysis carried out as per GEEC/SOP/01

SI. No.	Parameters	Unit	Results	Limits	Test Method
1	Particulate Matter (PM <sub>10</sub> )	μg/m³	52	100	IS 5182(23)
2	Particulate Matter (PM <sub>2.5</sub> )	μg/m³	33	60	CPCB Guidelines
3	Sulphur Dioxide (SO <sub>2</sub> )	μg/m³	5	80	IS 5182(2)
4	Nitrogen Dioxide (NO <sub>2</sub> )	μg/m³	12	80	IS 5182(VI)
5	Lead (Pb)	μg/m³	<0.01	1	IS 5182(22)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of Report\*\*\*\*\*\*\*\*\*\*\*\*

Authorised by: Lab -in-Charge

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### TEST REPORT

REPORT NO: GEEC/SLM/AGTP/2017/03/01

Lab. ID No.: GT/SLM/ AGTP/2017/03/01

Customer Name:

Customer Address:

Sample Description:

Monitoring Done By:

Date: 11/03/2017

Date of Sampling: 09/03/2017

Agartala Gas Turbine Power Plant

Agartala Gas Turbine Power Plant

Ramchandranagar, PO NEEPCO, Agartala, Tripura (W) - 79900

Sound Level Monitoring

Mr. P. Talukdar

	Sound Level in di	BA	
GTG Machine Ha	ll (At Source)	89.2	
GT Control Room	Corridor	73.5	
GT Control Room	ı	56.4	
Cooling Tower (A	at Source)	86.4	
GSC Ground Floo	or	90.4	
GSC First Floor		89.3	
Steam Turbine Co	ontrol Room	66.9	
WTP Control Plan	nt	71.5	
Boiler Area		76.3	
Near Health Care	Unit	56.5	
Near Mechanical	Workshop	52.8	
POLLU	UTION CONTROL LAW SERIES:	PCLS/06/2000-01 CPCB	
Avec Code	Catagories of Awar/7	Limits in dB(A) Leq	
Area Code	Categories of Area/Zone	Day Time (6 am – 10 pm)	
A	Industrial Area	75	
B Commercial		65	

\*\*\*\*\*\* End of Report\*\*\*\*\*\*\*\*

Instrument Used: Model: SLM 4023SD, Make: Lutron, Taiwan The above findings are based on reading collected on the specific date.

For GREEN TECH Environmental Engineer & Consultants

Blahon

(Dr. B. Lahon)

Lab In-charge

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# ग्रीन टेक एनवायर्नमेंटल इंजीनियर और कंसल्टेंट्स

### **GREEN TECH ENVIRONMENTAL ENGINEER & CONSULTANTS**

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House No-11, Champaknagar, Narayan Path, Bhetapara, Guwahati-781028, www.greentecheec.in Telefax -0361 2300278 Mobile: 9435046677, 9954089052, E-mail: green\_pranjal@hotmail.com, info@greentecheec.in

Report No: GEEC/NE/STK/2017	/03/1	Date:	11-03-2017	
Name of the Industry	AGARTALA GAS TURBINE POWER PLANT	Date of sampling:	07-03-2017	
Address	NEEPCO, Ramchandra Nagar, TRIPURA (WEST)	Time of Sampling:	10.45 am to 11.10am	
	STACK MONITORING RE	PORT		
Stack Details:	GT-01, E: 091°21'40	" N: 23 <sup>0</sup> 52'17"		
Fuel Used	Natural Gas			
	Flow Characteristic	S		
Ambient Temp, °C	28.2			
Stack Temp, °C	244			
	Emission Details			
PARAMETERS	RESULT CPCB Standards The Environ (Protection) Rules, 1986			
Particulate Matter, mg/Nm <sup>3</sup>	22	-		
Sulphur dioxide (SO <sub>2</sub> ) ppm	<1	-		
Oxides of Nitrogen (NO <sub>2</sub> ) ppm	27		100	
Carbon Monoxide, (CO) ppm	207		-	
Carbon Dioxide, (CO <sub>2</sub> ) %	8.5		-	
Oxygen, O <sub>2</sub> %	12.6		-	
Sampling and analysis is carried IS: 13270:1992(Reaffirmed 1999	out as per IS: 11255 (Part-1, 2	, 3 & 7) 1985,		
Equipment Details:	Make: Endee Engineers Pvt.Ltd. Model No: PA 960, Polltech Instrum Ltd. Model No: SMS-4			
Monitored by:	Mr.Dilip Deka & P.Talukdar			
Remarks:	Complied	5		
		Authorised by	y: Lab -in-Charge	
		Bl	alon	
		(Dr. Be	linda Lahon)	

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Report No: GEEC/NE/STK/201	7/03/2	Date:	11-03-2017	
Name of the Industry	AGARTALA GAS TURBINE POWER PLANT	Date of sampling:	07-03-2017	
Address	NEEPCO, Ramchandra Nagar, TRIPURA (WEST)	Time of Sampling:	11.35 am to 11.50 am	
	STACK MONITORING RE	PORT		
Stack Details:	GT-02, E: 091 <sup>0</sup> 21'41"	N: 23 <sup>0</sup> 52'18"		
Fuel Used:	Natural Gas		3	
	Flow Characteristics	3		
Ambient Temp, °C	28.2		71 - 71 - 72 - 74 - 14 - 14 - 14 - 14 - 14 - 14 - 14	
Stack Temp, °C	275			
	Emission Details			
PARAMETERS	RESULT		rds The Environment on) Rules, 1986	
Particulate Matter, mg/Nm³	25			
Sulphur dioxide (SO <sub>2</sub> ) ppm	<1	-		
Oxides of Nitrogen (NO <sub>2</sub> ) ppm	24	100		
Carbon Monoxide, (CO) ppm	295		1 <b>-</b> 8	
Carbon Dioxide, (CO <sub>2</sub> ) %	7.3		•	
Oxygen, O <sub>2</sub> %	13.8		-	
Sampling and analysis is carrie IS: 13270:1992(Reaffirmed 199	d out as per IS: 11255 (Part-1, 2,	3 & 7) 1985,		
Equipment Details:	Make: Endee Engineers Pvt.Ltd. Model No: SMS-4	Model No: PA 960, Po	olltech Instruments Pvt. Ltd	
Monitored by:	Mr.Dilip Deka & P.Talukdar			
Remarks:	Complied			
		Authorised b	y: Lab -in-Charge	
		Ble	alor	
		(Dr. Be	elinda Lahon)	

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Report No: GEEC/NE/STK/20	017/03/3	Date:	11-03-2017		
Name of the Industry	AGARTALA GAS TURBINE POWER PLANT	Date of sampling:	07-03-2017		
Address	NEEPCO, Ramchandra Nagar, TRIPURA (WEST)	Time of Sampling:	12.10 pm to 12.30 pm		
	STACK MONITORING R	EPORT			
Stack Details:	GT-03, E: 091 <sup>0</sup> 21'3	9" N: 23 <sup>0</sup> 52'16"			
Fuel Used:	Natural Gas				
	Flow Characteristic	cs			
Ambient Temp, °C	28.2		1 - 1 - 1 - 1 - 1 - 1		
Stack Temp, °C	334				
	Emission Details	-			
PARAMETERS	RESULT	CPCB Standards The Environment (Protection) Rules, 1986			
Particulate Matter, mg/Nm <sup>3</sup>	29		-		
Sulphur dioxide (SO <sub>2</sub> ) ppm	<1	. B			
Oxides of Nitrogen (NO <sub>2</sub> ) ppn	n 26	100			
Carbon Monoxide, (CO) ppm	321	-			
Carbon Dioxide, (CO <sub>2</sub> ) %	8.7	-			
Oxygen, O <sub>2</sub> %	12.4	-			
Sampling and analysis is carr IS: 13270:1992(Reaffirmed 1	ied out as per IS: 11255 (Part-1, 2 999)	2, 3 & 7) 1985,	AU		
Equipment Details:			Model No: PA 960, Polltech Instruments Pvt.		
Monitored by:	Mr.Dilip Deka & P.Talukdar				
Remarks:	Complied	Complied			
		Authorised by	/: Lab -in-Charge		
			chon		
		(Dr. Be	linda Lahon)		

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Report No: GEEC/NE/STK/201	7/03/4		Date:	11-03-2017	
Name of the Industry	AGARTALA GAS TURBINE DOWER PLANT		Date of sampling:	07-03-2017	
Address			Time of Sampling:	12.45 pm to 1.10 pm	
	STACK	MONITORING RE	PORT		
Stack Details:	GT-04,	E: 091 <sup>0</sup> 21'39	" N: 23 <sup>0</sup> 52'15"		
Fuel Used:	Natural Gas	S			
	F	low Characteristics	3		
Ambient Temp, °C	28.2				
Stack Temp, °C	309			-	
		Emission Details			
PARAMETERS	F	RESULT	CPCB Standards The Environment (Protection) Rules 1986		
Particulate Matter, mg/Nm <sup>3</sup>		20	-		
Sulphur Dioxide (SO <sub>2</sub> ) ppm		< 1		-	
Oxides of Nitrogen (NO <sub>2</sub> ) ppm		18		100	
Carbon Monoxide, (CO) ppm		268			
Carbon Dioxide, (CO <sub>2</sub> ) %		9.2		3₩)	
Oxygen, O <sub>2</sub> %		11.9	_		
Sampling and analysis is carried IS: 13270:1992(Reaffirmed 199	l out as per IS 9)	S: 11255 (Part-1, 2	2, 3 & 7) 1985,		
Equipment Details:	Make: Endee Engineers Pvt.Ltd. Ltd. Model No: SMS-4		Model No: PA 960,	Polltech Instruments Pv	
Monitored by:	Mr.Dilip Deka	a & P.Talukdar	The second secon		
Remarks:	Complied			-	
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#### **TEST REPORT**

Ref. No.: GEEC/W/20	017/03/1	Date of Reporting:	11-03-2017	
Customer Name:	Agartala Gas Turbine Power Plant	Lab. ID No.:	GEEC-WS/17/03/03	
Customer Address:	Agartala Gas Turbine Power Plant Ramchandranagar PO NEEPCO, Agartala, Tripura (W)-79908	Date of Sampling:	09-03-2017	
Sampling Location:	Guest House	Sample Receipt Date:	09-03-2017	
Sample Description:	Ground Water	Test Start Date:	09-03-2017	
Sample Drawn By:	Mr. P. Talukdar	Test Completion Date:	11-03-2017	
Sample Condition:	Sealed	Sampling Method:	GEEC/SOP/02	

					IS-1050	0:2012
SL. NO.	DESCRIPTION	METHOD	UNIT	RESULTS	Requirement (Desirable Limit)	Permissible Limit in the absence of alternate source
1	pН	APHA 22nd Edition, 2012	-	6.69	6.5 to 8.5	e
2	Turbidity	APHA 22nd Edition, 2012	NTU	1	5	10
3.	TDS	APHA 22nd Edition, 2012	mg/l	162	500	2000
4	Total Hardness as CaCO <sub>3</sub>	APHA 22nd Edition, 2012	mg/l	8	300	600
5	Iron	APHA 22nd Edition, 2012	mg/l	0.1	0.3	1
6	Chlorides	APHA 22nd Edition, 2012	mg/l	29	250	1000
7	Calcium	APHA 22nd Edition, 2012	mg/l	64	75	200
8	Sulphates	APHA 22nd Edition, 2012	mg/l	40	200	400
9	Alkalinity	APHA 22nd Edition, 2012	mg/l	24	200	600
		**********	End of Re	eport**********		

Authorised by: Laboratory In-charge

Blakon

(Dr. Belinda Lahon)

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#### TEST REPORT

Ref. No.: GEEC/W/20	17/03/2	Date of Reporting:	11-03-2017
Customer Name:	Agartala Gas Turbine Power Plant	Lab. ID No.:	GEEC-WS/17/03/04
Customer Address:	Agartala Gas Turbine Power Plant Ramchandranagar PO NEEPCO, Agartala, Tripura (W)-79908	Date of Sampling:	09-03-2017
Sampling Location:	Staff Colony	Sample Receipt Date:	09-03-2017
Sample Description:	Ground Water	Test Start Date:	09-03-2017
Sample Drawn By:	Mr. P. Talukdar	Test Completion Date:	11-03-2017
Sample Condition:	Sealed	Sampling Method:	GEEC/SOP/02

- 1				RESULTS	IS-10500:2012	
SL. NO.	DESCRIPTION	METHOD	UNIT	RESULTS	Requirement (Desirable Limit)	Permissible Limit in the absence of alternate source
1	рН	APHA 22nd Edition, 2012	, <del>, ,</del> ,	6.68	6.5 to 8.5	=
2	Turbidity	APHA 22nd Edition, 2012	NTU	1	5	10
3	TDS	APHA 22nd Edition, 2012	mg/l	172	500	2000
4	Total Hardness as CaCO₃	APHA 22nd Edition, 2012	mg/l	6	300	600
5	Iron	APHA 22nd Edition, 2012	mg/l	0.1	0.3	1
6	Chlorides	APHA 22nd Edition, 2012	mg/l	31	250	1000
7	Calcium	APHA 22nd Edition, 2012	mg/l	56	75	200
8	Sulphates	APHA 22nd Edition, 2012	mg/l	44	200	400
9	Alkalinity	APHA 22nd Edition, 2012	mg/l	28	200	600

Authorised by: Laboratory In-charge

Blahon

(Dr. Belinda Lahon)

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House No-11, Champaknagar, Narayan Path, Bhetapara, Guwahati-781028, www.greentecheec.in Telefax -0361 2300278 Mobile: 9435046677, 9954089052, E-mail: green\_pranjal@hotmail.com, info@greentecheec.in

#### TEST REPORT

Ref. No.: GEEC/W/2017/03/3		Date of Reporting:	11-03-2017
Customer Name:	Agartala Gas Turbine Power Plant	Lab. ID No.:	GEEC-WS/17/03/05
Customer Address:	Agartala Gas Turbine Power Plant Ramchandranagar PO NEEPCO, Agartala, Tripura (W)-79908	Date of Sampling:	09-03-2017
Sampling Location:	Canteen	Sample Receipt Date:	09-03-2017
Sample Description:	Ground Water	Test Start Date:	09-03-2017
Sample Drawn By:	Mr. P. Talukdar	Test Completion Date:	11-03-2017
Sample Condition:	Sealed	Sampling Method:	GEEC/SOP/02

					IS-1050	0:2012
SL. NO.	DESCRIPTION	METHOD	UNIT	RESULTS	Requirement (Desirable Limit)	Permissible Limit in the absence of alternate source
1	рН	APHA 22nd Edition, 2012	=	7.12	6.5 to 8.5	-
2	Turbidity	APHA 22nd Edition, 2012	NTU	1	5	10
3	TDS	APHA 22nd Edition, 2012	mg/l	182	500	2000
4	Total Hardness as CaCO <sub>3</sub>	APHA 22nd Edition, 2012	mg/l	12	300	600
5	Iron	APHA 22nd Edition, 2012	mg/l	0.1	0.3	1
6	Chlorides	APHA 22nd Edition, 2012	mg/l	54	250	1000
7	Calcium	APHA 22nd Edition, 2012	mg/l	36	75	200
8	Sulphates	APHA 22nd Edition, 2012	mg/l	48	200	400
9	Alkalinity	APHA 22nd Edition, 2012	mg/l	16	200	600

Authorised by: Laboratory In-charge

Blahon

(Dr. Belinda Lahon)

TeleFax: 0361 2300278

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# ग्रीन टेक एनवायर्नमेंटल इंजीनियर और कंसल्टेंट्स

### **GREEN TECH ENVIRONMENTAL ENGINEER & CONSULTANTS**

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#### **TEST REPORT**

Ref. No.: GEEC/W/2017/03/04		Date of Reporting:	11-03-2017
Customer Name:	Agartala Gas Turbine Power Plant	Lab. ID No.:	GEEC-WS/17/03/06
Customer Address:	Agartala Gas Turbine Power Plant Ramchandranagar PO NEEPCO, Agartala, Tripura (W)-79908	Date of Sampling:	09-03-2017
Sampling Location:	Cooling Tower	Sample Receipt Date:	09-03-2017
Sample Description:	Industrial Water	Test Start Date:	09-03-2017
Sample Drawn By:	Mr. P. Talukdar	Test Completion Date:	11-03-2017
Sample Condition:	Sealed	Sampling Method:	GEEC/SOP/02

	in the				IS-1050	0:2012
SL. NO.	DESCRIPTION	METHOD	UNIT	RESULTS	Requirement (Desirable Limit)	Permissible Limit in the absence of alternate source
1	рН	APHA 22nd Edition, 2012		8.11	6.5 to 8.5	=
2	Turbidity	APHA 22nd Edition, 2012	NTU	2	5	10
3	TDS	APHA 22nd Edition, 2012	mg/l	456	500	2000
4	Total Hardness as CaCO <sub>3</sub>	APHA 22nd Edition, 2012	mg/l	8	300	600
5	Iron	APHA 22nd Edition, 2012	mg/l	0.1	0.3	1
6	Chlorides	APHA 22nd Edition, 2012	mg/l	37	250	1000
7	Calcium	APHA 22nd Edition, 2012	mg/l	68	75	200
8	Sulphates	APHA 22nd Edition, 2012	mg/l	96	200	400
9	Alkalinity	APHA 22nd Edition, 2012	mg/l	42	200	600

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#### **TEST REPORT**

Ref. No.: GEEC/W/2017/03/05		Date of Reporting:	11-03-2017
Customer Name:	Agartala Gas Turbine Power Plant	Lab. ID No.:	GEEC-WS/17/03/07
Customer Address:	Agartala Gas Turbine Power Plant Ramchandranagar PO NEEPCO, Agartala, Tripura (W)-79908	Date of Sampling:	09-03-2017
Sampling Location:	STG I 1 & 2 (CBD) Boiler	Sample Receipt Date:	09-03-2017
Sample Description:	Industrial Water	Test Start Date:	09-03-2017
Sample Drawn By:	Mr. P. Talukdar	Test Completion Date:	11-03-2017
Sample Condition:	Sealed	Sampling Method:	GEEC/SOP/02

*					IS-1050	0:2012
SL. NO.	DESCRIPTION	METHOD	UNIT	RESULTS	Requirement (Desirable Limit)	Permissible Limit in the absence of alternate source
1	рН	APHA 22nd Edition, 2012	, <del>, _</del> ,	8.04	6.5 to 8.5	=:
2	Turbidity	APHA 22nd Edition, 2012	NTU	4	5	10
3	TDS	APHA 22nd Edition, 2012	mg/l	410	500	2000
4	Total Hardness as CaCO <sub>3</sub>	APHA 22nd Edition, 2012	mg/l	9	300	600
5	Iron	APHA 22nd Edition, 2012	mg/l	0.1	0.3	1
6.	Chlorides	APHA 22nd Edition, 2012	mg/l	68	250	1000
7	Calcium	APHA 22nd Edition, 2012	mg/l	44	75	200
8	Sulphates	APHA 22nd Edition, 2012	mg/l	68	200	400
9	Alkalinity	APHA 22nd Edition, 2012	mg/l	32	200	600
		**********	End of R	eport**********		

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#### **TEST REPORT**

Ref. No.: GEEC/W/2017/03/06		Date of Reporting:	11-03-2017
Customer Name:	Agartala Gas Turbine Power Plant	Lab. ID No.:	GEEC-WS/17/03/08
Customer Address:	Agartala Gas Turbine Power Plant Ramchandranagar PO NEEPCO, Agartala, Tripura (W)-79908	Date of Sampling:	09-03-2017
Sampling Location:	STG II 3 & 4 (CBD) Boiler	Sample Receipt Date:	09-03-2017
Sample Description:	Industrial Water	Test Start Date:	09-03-2017
Sample Drawn By:	Mr. P. Talukdar	Test Completion Date:	11-03-2017
Sample Condition:	Sealed	Sampling Method:	GEEC/SOP/02

					IS-1050	0:2012
SL: NO.	DESCRIPTION	METHOD	UNIT	RESULTS	Requirement (Desirable Limit)	Permissible Limit in the absence of alternate source
1	рH	APHA 22nd Edition, 2012	-	8.08	6.5 to 8.5	-
2	Turbidity	APHA 22nd Edition, 2012	NTU	5	5	10
3	TDS	APHA 22nd Edition, 2012	mg/l	428	500	2000
4	Total Hardness as CaCO <sub>3</sub>	APHA 22nd Edition, 2012	mg/l	14	300	600
5	Iron	APHA 22nd Edition, 2012	mg/l	0.1	0.3	1
6	Chlorides	APHA 22nd Edition, 2012	mg/l	58	250	1000
7	Calcium	APHA 22nd Edition, 2012	mg/l	40	75	200
8	Sulphates	APHA 22nd Edition, 2012	mg/l	74	200	400
9	Alkalinity	APHA 22nd Edition, 2012	mg/l	20	200	600
	100 000	**********	End of R	eport*********		<del></del>

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