

RELIANCE

Rosa Power Supply
Company Limited
CIN: U3110MH1994PLC243148

Administrative Block, Hardoi Road,
P.O. Rausar Kothi, Tehsil-Sadar,
District – Shahjahanpur
Uttar Pradesh 242 406

Tel: +91 05842 306600
Fax: +91 05842 300003
www.reliancepower.co.in

Ref: RPSCL/Env/Statement/5/2019/3

Date: 09.05.2019

To,
The Member Secretary
Uttar Pradesh Pollution Control Board
TC 12 B- Vibhuti Khand, Gomati Nagar
Lucknow

Sub: Submission of Environment Statement (FORM V) of FY 2018-19 for Stage I & II

Dear Sir,

This is with reference to the Air Consent Ref No- 17128/UPPCB/Bareilly (UPPCBRO)/CTO/Air/Shahjahanpur and Air Consent Application No-797769 Dt: 19.04.2018 along with Water Consent Ref No- 17292/UPPCB/ Bareilly (UPPCBRO)/CTO/Water/Shahjahanpur/2018 Dt: 19-4-2018 and Consent Application No-803566/Water for **Stage-I** and the Air Consent Ref No- 17286/UPPCB/Bareilly (UPPCBRO)/CTO/Air/Shahjahanpur and Air Consent Application No-803347 Dt: 19.04.2018 along with Water Consent Ref No- 17300/UPPCB/ Bareilly (UPPCBRO)/CTO/water/SHAHJAHANPUR/2018 Dt: 19-4-2018 and Consent Application No-803856/Water for **Stage-II**, issued to us and Environmental Clearance J-13011/19/2005-IA.II(T) dated 14-3-2006 for Stage I & Environmental Clearance J-13011/73/2007-IA.II(T) dated 20-7-2009 for stage II.

As advised , please find enclosed the Environmental Statement for the Stage I & II of the FY 2018-19 both in soft as well as hard copy.

Thanking You,

For Rosa Power Supply Co. Ltd.

B.S. [Signature]
(Authorized Signatory)

Cc: (I) Regional Officer UPPCB Bareilly
(II) Regional Officer MoEF Lucknow

ENVIRONMENTAL STATEMENT

OF

Rosa Power Supply Company Ltd.
Shahjahanpur (U.P.)

2 x 300 MW (STAGE-I)

FINANCIAL YEAR ENDING THE 31st MARCH, 2019

Prepared by:

Rosa Power Supply Company Ltd.
Shahjahanpur (U.P.)



(FORM – V)
(See Rule 14)

Environmental Statement Report for the Financial Year ending 31st March, 2019.

PART – A

- (i) Name and address of the : Mr. B S Prasad
Owner/occupier of the Industry Rosa Power Supply Co. Ltd.
operation or process P.O.-Rausar Kothi
Hardoi Road
Distt. – Shahjahanpur(U.P.)
- (ii) Production Capacity : 2X300 MW
- (iii) Year of Establishment : Unit#1_COD_12th March 2010
Unit#2_COD_30th June 2010
- (iv) Date of Last environmental statement : 12.05.2018
submitted
- (v) Industry category : Thermal Power Plant Coal Based
Primary : (STC Code)
Secondary : (SIC Code)



PART – B
(Water and Raw Material Consumption)

1. Water Drawn M³/Day

(All values indicate Annual consumption)

		FY 2017-18	FY 2018-19	Remarks
(i)	Gross Energy Generation (MU)	3985.9	2251.9	Unit Generation is less than previous year.
(ii)	Water consumption	8222993M ³	4534157M ³	Total Water Consumption is less due to less generation than previous year.
(iii)	Process	1776166M ³	979378M ³	-do-
(iv)	Condenser Cooling	6422979M ³	3541630M ³	-do-
(v)	Domestic	23846M ³	13149M ³	-do-

S.No.	Name of the product	Process water Consumption per unit of product output.	
		2017-18	2018-19
1	Electricity	0.45 Ltr/Unit	0.43 Ltr/ Unit*

*The specific process water consumption was less during this year as compared to previous year due to efficient Operation.

2. Raw Material Consumption

Name of Raw Material	Name of the product	Consumption of Raw Material unit of output			
		2017-18		2018-19	
Coal	Electricity	Total Consumption(MT):	2510234	Total Consumption(MT)	1313533
		Specific Consumption per kw:	0.63* Kg/Unit	Specific Consumption per kw	0.58

*The Specific Coal consumption was less as compared to previous year due to better GCV of Coal.



PART – C

Pollution discharged to Environment/Unit of output

(Parameter as specified in the consent issued)

Pollutants		Quantity of Pollutions discharged (mass/day) Kg/day	Concentration of Pollutants in discharge (mass/volume) Kg/m3	Percentage of variation from prescribed Standards
Treated Effluent Discharge*				
Unit	Limit			% below –
pH	5.5. to 9.0	----	----	66%
SS	< 100 mg/l	0.02	0.034	95%
Oil & Grease	< 10 mg/l	0.00	0.0005	83.3%
BOD _{3 day}	< 30 mg/l	0.00	0.005	88.8%
COD	< 250 mg/l	0.02	0.028	
Air**				
SPM-Unit 1		1626.21	45.90	
SPM- Unit 2		1633.41	45.60	
		Kg/ day	mg/Nm ³	

*-Above data taken from test report of MoEF approved Laboratory for the sample taken on 16.03.2019 and average treated effluent flow is 0.57 CuM/day. (Refer Annexure_1.)

** - As per Test Report of MoEF approved Laboratory dated 27.03.2019 of Unit 1 & Unit 2 of Stage_1 (Enclosed as Annexure_2)



PART – D

HAZARDOUS WASTES

(As specified under Hazardous wastes/management
& Handling Rules, 1989)

Hazardous Wastes		Total Qty (KG)	
		2017-18	2018-19
(a)	From Process	44.75 KL (Spent oil) 330 kg (Waste containing oil)	9.20 KL (Spent oil)* 1035.32 kg (Waste containing oil)**
(b)	From Pollution Control facilities	11.19 KL	1.20 KL

*- Spent Oil generation was less due to less Operation of plant.

** - Waste Containing oil is more because one of the oil tanks was taken for cleaning.

The RPSCL has obtained Hazardous Waste Authorization from UPPCB for Collection & Storage of Hazardous waste.

Waste/ Spent Oil is collected at centrally located point in isolated stores area meant for them in sealed drums, which is further sent to authorized recycler for disposal as per norms of MoEF.



PART – E

SOLID WASTES

Total Quantity

Solid Wastes:

Solid Wastes:	Total Qty (Metric tonne or MT)	
	2017-18	2018-19
(i) From Process	165614 MT(Bottom Ash)	85527 MT (Bottom Ash)
(ii) From Pollution Control Facilities		
• Ash	• 662458 MT	• 342107 MT
• STP Sludge	• 27 MT	• 29 MT
c)	Ash	STP Sludge
(i) Quantity recycled or re-utilized within unit	I. 53770 27	I. 127792 29
(ii) Sold*	II. 571903 -----	II. 368944 -----
(iii) Disposed	III. 202399 -----	III. (-)69102** -----

* The ash is given to various agencies free of cost.

** Total Ash Generation (Fly Ash and Bottom Ash) is less than previous year, as plant ran on 41.3% PLF only, due to low power demand, though actual ash utilization in FY 2018-19 is more than ash generated during the year. Old stock of pond ash was also utilized in addition to the ash generated during the year.



PART – F

Indicate disposal practice adopted for Hazardous as well as solid waste

- a) **Coal Ash:** As per MoEF guidelines, ash is being given to outside brick unit other than brick kiln, various cement industries for using ash as ingredients in their cement manufacturing units from our silo in closed trucks. Pond ash is lifted for Ash Pond dyke bund rising.
- b) **Used Batteries:** Collected centrally at store in isolated place for disposal to authorized agencies as per MoEF guidelines.
- c) **Hazardous waste:** Waste oil, Oil soaked cotton is collected in store for disposal to authorized agencies as per latest guidelines of MoEF.
- d) **E-Waste-** E-Waste is collected in store for disposal to authorized agencies as per latest guideline of MoEF.
- e) **Bio-Medical Waste-** Bio-medical waste is picked up by authorized agencies on daily basis from health centre.



PART – G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

Pollution Control facilities such as ETP/ STP help in conservation of water resources. The treated water from ETP & STP is used for Ash Handling & Horticulture. Also, the plant is operated on a CoC of more than 5 as against the designed CoC of more than 4 which is helping in further water conservation. All these measures effectively reduce the fresh water intake.



PART – H

Additional investment proposal for environmental protection abatement of pollution, prevention of pollution

1. Tree Plantation is being carried out in and around the plant premises. Total 18150 nos. of trees and shrubs have been planted in the FY 2018-19 (common for stage 1 & 2)
2. During Financial year 2018-19 total expenditure of Rs 1.7 Cr approximately done on horticulture & greenery development (common for stage 1 & 2).
3. Company has successfully passed the surveillance Audit for the Environment Management System Certification (ISO 14001:2015).
4. Continuous Air Quality Monitoring Stations (CAAQMS) have been installed in FY 2013-14, Continuous Effluent Monitoring System (CEMS) have been installed in FY 2014-15, and Connected data of Stack Emission, Effluent with CPCB Server in FY 2015-16, Online Coal Ash Analyser in FY 2017-18 and Remote Calibration Facility of CEMS in FY 2018-19 with an approximate investment of Rs 1.5 crore, 13 Lacs, 5 Lacs, 34 Lacs and 23.50 Lacs approximately respectively.



PART – I

Any other particulars for improving the quality of environment.

- (1) We are complying with all the directions and conditions of state and central pollution boards and regular Water & Air consents are in force.
- (2) Regular monitoring of Noise level, AAQ, Waste and Stack Gases is being done. Waste water treatment and recycling is in practice.
- (3) Almost 18150 Tree and shrubs Plantation has been done in the year 2018-19 for improving the quality of environment (commonly for Stage 1 & 2).
- (4) Water conservation by Ash water recirculation.
- (5) To further improve the treated water quality at plant STP, Dual Media Filter has been provided.
- (6) Tree plantation, Prabhat Pheri and Quiz programmes organized on World Environment Day-2018 to increase environmental awareness among employees (Photographs enclosed as Annexure_3)
- (7) Training to employees from different departments has been given on Environmental Management System (ISO 14001:2015) and environmental aspect impact assessment
- (8) Good Practices/ Environmental Improvement Plans were made to achieve continual Improvement of Environment.

Note: Environmental Monitoring reports (AAQ, Noise, STP, and ETP) are enclosed as Annexure 3.

Following Environmental Improvement Plans were done during the FY 2018-2019

- (1) Waste Disposal - Different color coding of drums for Oily waste and General Waste, Segregation of E-waste, Electrical waste
 - (2) PCC of the oil storage shed at maintenance yard of all contractors' area
 - (3) Agreement for Biomedical waste disposal with approved agency and renewal of Authorization till 08.12.2019.
 - (4) Remote Calibration facility with CPCB server upgraded for online Stack Emission Data as per CPCB Guideline.
 - (5) Re-utilising the treated effluent from Coal Settling Pit for dust suppression in CHP Area
 - (6) Interconnecting sewage water of admin building and fire station with STP for optimum utilization of Sewage Treatment Plant. Also new STP of 10 KLD installed at CHP area to treat sewage water.
-



Advanced Environmental Testing And Research Lab P. Ltd.



CIN: U73100MP2002PTC015352

Approved: by Ministry of Environment, Forest and Climate Change (MoEF&CC)

Regional Office: BMS Business Center, 10 PVR Plaza Complexes Connaught Circus,

New Delhi-110 001, India

011-4151 3601, 3606 Fax: 011-2331 0093

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II

Gwalior-474 011, M.P., India

☎ 0751-223 2177, 409 9916

Email: aetgwalior@gmail.com, aetrlcenter@gmail.com www.aetrl.com

OHSAS
18001:2007

TEST REPORT

Company Name	: Rosa Power Supply Co. Ltd.	Date of Issue	: 02/04/2019
Address	: Rosa, Shahjahanpur, UP, India	Date of Sample Received	: 18/03/2019
Nature of Sample	: Effluent Water Sample	Qty of Sample	: 2.0Ltr
Lab. Ref. No.	: AETRL/2019/CHEM/WW/522	Sample Bottle	: Plastic packing
URL NO.	: TC4705-19-0-0000U311P	Sample Description	: ETP Outlet
Sample Collected by	: Sampling Staff	D/o Sample Taken	: 16/03/2019
D/o Sample Analysis	: 19/03/2019	D/o of Completion Analysis	: 25/03/2019

TEST RESULT

S. No.	PARAMETER	UNIT	PROTOCOL	RESULTS	Standard (CPCB) (max)	
					Inlands Surface Water	Public Sewer
1	pH	.....	APHA 4500 H+B	7.93	5.5 - 9.0	5.5 - 9.0
2	Total Suspended Solids(TSS)	Mg/l	APHA 4500 H+B	34.0	100	600
3	Bio-Chemical Oxygen Demand (3days at 27°C)(BOD)	Mg/l	APHA 4500 (D)	5.0	30	350
4	Chemical Oxygen Demand (COD)	Mg/l	APHA 4500 (B)	28.0	250	NS
5	Oil & Grease (O&G)	Mg/l	APHA 4500 (B)	BDL	10	20



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Email: aetgwalior@gmail.com, aetricenter@gmail.com, www.aetri.com



OHSAS
18001:2007

TEST REPORT

Company Name	: Rosa Power Supply Co. Ltd.	Date of Issue	: 02/04/2019
Address	: Rosa, Shahjahanpur, UP, India	Date of Sample Received	: 18/03/2019
Nature of Sample	: Sewage Water Sample	Qty of Sample	: 2.0Ltr
Lab. Ref. No.	: AETRL/2019/CHEM/WW/524	Sample Bottle	: Plastic packing
URL NO.	: TC4705-19-0-0000U313P	Sample Description	: Outlet Sample STP Town Ship
Sample Collected by	: Sampling Staff	D/o Sample Taken	: 16/03/2019
D/o Sample Analysis	: 19/03/2019	D/o of Completion Analysis	: 25/03/2019

TEST RESULT

S. No.	PARAMETER	UNIT	PROTOCOL	RESULTS	Standard (CPCB) (max)	
					Inlands Surface Water	Public Sewer
1.	pH	.....	APHA 4500 H+B	7.83	5.5 - 9.0	5.5 - 9.0
2.	Total Suspended Solids(TSS)	Mg/l	APHA 4500 H+B	38.0	100	600
3.	Bio-Chemical Oxygen Demand (3days at 27°C)(BOD)	Mg/l	APHA 4500 (D)	6.0	30	350
4.	Chemical Oxygen Demand (COD)	Mg/l	APHA 4500 (B)	36.0	250	NS
5.	Oil & Grease (O&G)	Mg/l	APHA 4500 (B)	BDL	10	20



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TEST REPORT

Company Name	: Rosa Power Supply Co. Ltd.	Date of Issue	: 02/04/2019
Address	: Rosa, Shahjahanpur, UP, India	Date of Sample Received	: 18/03/2019
Nature of Sample	: Sewage Water Sample	Qty of Sample	: 2.0Ltr
Lab. Ref. No.	: AETRL/2019/CHEM/WW/526	Sample Bottle	: Plastic packing
URL NO.	: TC4705-19-0-0000U315P	Sample Description	: Outlet Sample STP Plant Site
Sample Collected by	Sampling Staff	D/o Sample Taken	16/03/2019
D/o Sample Analysis	: 19/03/2019	D/o of Completion Analysis	: 25/03/2019

TEST RESULT

S. No.	PARAMETER	UNIT	PROTOCOL	RESULTS	Standard (CPCB) (max)	
					Inlands Surface Water	Public Sewer
1.	pH	.....	APHA 4500 H+B	7.67	5.5 - 9.0	5.5 - 9.0
2.	Total Suspended Solids(TSS)	Mg/l	APHA 4500 H+B	26.0	100	600
3.	Bio-Chemical Oxygen Demand (3days at 27°C) (BOD)	Mg/l	APHA 4500 (D)	9.0	30	350
4.	Chemical Oxygen Demand (COD)	Mg/l	APHA 4500 (B)	32.0	250	NS
5.	Oil & Grease (O&G)	Mg/l	APHA 4500 (B)	BDL	10	20



Authorized Signatory

Advanced Environmental Testing And Research Lab P. Ltd.



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OHSAS
18001:2007

TEST REPORT

Company Name	: Rosa Power Supply Co. Ltd.	Date of Issue	: 02/04/2019
Address	: Rosa, Shahjahanpur, UP, India	Date of Sample Received	: 01/03/2019 To 31/03/2019
Location	: Stack Monitoring	Monitoring Conducted by	: Sampling Staff
Source of Monitoring	: Boiler Stack - I (Bi-Flue) of Stage - I	Environmental Conditions during Sampling	: Sunny
Lab. Ref. No.	: AETRL/2019/CHEM/ST/518	Material of Construction	: MS
URL NO.	: TC4705-19-0-0000U307P	Height From Ground Level	: 105 M

	Boiler Stack - I
Stack Area / Shape	05M/ Circular
Capacity	1025 TPH
Type of Fuel Used/Consumption per day	Coal/ 190tph
Thimble No.	M-1,7,10& 14
Stack Height (M)	275

TEST RESULT

Date of Monitoring	Temperature (OC)	Velocity (m/s)	SO ₂ (mg/Nm ³)	NO _x (mg/Nm ³)	P.M. (mg/Nm ³)
Shut down					
Shut down					
22.03.19	128.00	27.44	1640.00	301.65	40.40
27.03.19	129.00	28.18	1649.07	310.20	43.40



Authorized Signatory

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TEST REPORT

Company Name	: Rosa Power Supply Co. Ltd.	Date of Issue	: 02/04/2019
Address	: Rosa, Shahjahanpur, UP, India	Date of Sample Received	: 01/03/2019 To 31/03/2019
Location	: Stack Monitoring	Monitoring Conducted by	: Sampling Staff
Source of Monitoring	: Boiler Stack -2 (Bi-Flue) of Stage - 1	Environmental Conditions during Sampling	: Sunny
Lab. Ref. No.	: AETRL/2019/CHEM/ST/519	Material of Construction	: MS
URL NO.	: TC4705-19-0-0000U308P	Height From Ground Level	: 105 M

	Boiler Stack - 2
Stack Area / Shape	05M/ Circular
Capacity	1025 TPH
Type of Fuel Used/Consumption per day	Coal/ 190tph
Thimble No.	M-2,11&15
Stack Height (M)	275

TEST RESULT

Date of Monitoring	Temperature (OC)	Velocity (m/s)	SO ₂ (mg/Nm ³)	NO _x (mg/Nm ³)	P.M. (mg/Nm ³)
07.03.19	128.00	27.83	1642.67	309.19	46.10
20.03.19	127.00	28.21	1621.33	312.49	43.20
27.03.19	128.00	28.42	1605.33	317.84	45.60
SHUT DOWN					



Authorized Signatory

2018

The World Environment Day 2018 was celebrated at Rosa Power with great enthusiasm. World environment day is celebrated on 5th June every year and so at Rosa Power also. Its aim is to raise global awareness about our environment. World environment day begun in the year 1972, the United Nations Conference on the Human environment was held from 5th June to 16th June. After that, every year on 5th June, it has been hosted by different countries of the world with different theme.

This year's theme of World environment day is "Beat Plastic Pollution". India is hosting this year World Environment Day.

A host of different programs were planned and conducted to ensure participation of all employees, Associates and children.

Programme(5 th June 2018)		Timing	Programme(5 th June 2018)		Timing
1	Prabhat Pheri at Township <i>Assembly Point: Party Lawn</i>	5:45 AM	5	Poster Competition (White Color – A0/ A1 Chart Paper)	
2	Tree Plantation (Near Temple Pond)	6:45 AM		Topic for Employees: "Beating Plastic Pollution".	Submit to EHS Dept. by 5 th June 2018 (11 AM)
3	Tea (Near Temple Parking)	6:50 AM		Topic for Children: "Say No to Plastic".	
4	Tree Plantation: Venue 1: Behind Admin Building – Stage 1 Reservoir Area Venue 2: Near Plant STP –Behind 220 KV Switchyard	9:00 AM 9:30 AM	CLOSING CEREMONY		
5	Quiz Competition Venue for Employees: Admin Building Training Centre Service Building Conf. Room AHP, CHP, DM Plant bldg. For Contractor Worker/ Engg. Rest Room at Contractor Shed	11:30 AM to 12:30 PM	1	Screening of Short film on Plastic Pollution	6:00 PM
			2	Prize Distribution (Township Club)	6:15 PM
			3	WED Message by Station Director, RPSCl	6:30 PM
			4	Vote of Thanks	6:45 PM
			5	Tea and Snacks	6:50 PM

The day started with "Prabhat Pheri" in township. Employees gathered at Party Lawn and started "Prabhat Pheri" at 05:45 AM along with slogans and Banners in their hands. The enthusiasm among the employees is reflected by the huge participation in the "Prabhat Pheri". A round table discussion on Environment and people participation to protect environment were organized after Prabhat Pheri. Station Director, **BS Prasad** addressed the employees and families and appreciated the overwhelming response and active participation of all the employees. Ladies and children also participated in the Prabhat Pheri. He also suggested to employee and family members not to use Plastic and use cloth bag during shopping.

RELIANCE

ROSA POWER SUPPLY CO LIMITED

Prabhat Pheri @ Township



Tree Plantation

Tree Plantation was organized inside township after Prabhat Pheri around 6:30AM. Fifty one (51) Coconut trees were planted around Temple Pond.



Approx 250 Neem trees planted Behind Admin Building , Reservoir Area ,stage 1, Plant area.



More than 750 Lemon Trees were planted by Station Director followed by Employees of RPSCL near Plant STP, 220 KV Switchyard. This location was cleared first with wild vegetation.



Quiz Competition

Environmental Quiz – Inquest 2018 was organized for Employees and workmen. Employees and workmen participated in large numbers and enjoyed the Quiz because of its informative pattern. Total 44 employees and 16 workmen participated in Quiz Competition.



Poster Competition for Employees and Children was organized. The Topic for **Employees** was "Beat Plastic Pollution" and **Topic for Children:** "Say No to Plastic". The response from Employees and Children was overwhelming. Everyone was surprised to see the excellent creative ideas of Children for the betterment of our Mother Earth and the way they have shown them in the posters.



Closing Ceremony

The closing ceremony was organized at Club Hall in the township. It began with introduction on importance of World Environment day and meaning of theme "**Beat Plastic Pollution**" followed by The Prize Distribution function by Station Director, Sh. BS Prasad and Mrs. Padma Prasad (President Ladies Club).

RELIANCE

ROSA POWER SUPPLY CO LIMITED

Video Clip on Hazards of Plastic Pollution and its Control Measures was also shown to raise awareness among Township Ladies, employee and associates.



All the Employees, Workmen and participating Children were present during the occasion. A small documentary on Environment was also showcased.

The program ended with Vote of Thanks by Head-Environment & Safety.



ENVIRONMENTAL STATEMENT

OF

**Rosa Power Supply Company Ltd.
Shahjahanpur (U.P.)**

2 x 300 MW (Stage-II)

FINANCIAL YEAR ENDING THE 31st MARCH, 2019

Prepared by:

**Rosa Power Supply Company Ltd.
Shahjahanpur (U.P.)**

(FORM – V)
(See Rule 14)

Environmental Statement Report for the Financial Year ending the 31st March, 2019.

PART – A

- (i) Name and address of the : Mr. B S Prasad
Owner/occupier of the Industry Rosa Power Supply Co. Ltd.
operation or process
Rausar Kothi
Hardoi Road
Distt. – Shajahanpur(U.P.)
- (ii) Production Capacity : 2X300 MW
- (iii) Year of Establishment : Unit#3_COD_01st January 2012
Unit#4_COD_30th March 2012
- (iv) Date of Last environmental statement : 12.05.2018
submitted
- (v) Industry category : Thermal Power Plant
Primary : (STC Code)
Secondary : (SIC Code)

PART – B

(Water and Raw Material Consumption)

1. Water Drawn M³/Day

(All values indicate Annual consumption)

			2017-18	2018-19	Remarks
(i)	Gross Energy Generation (MU)	:	3733 MU	2089.20 MU	Gross Energy generation was LESS than the previous year due to low demand.
(ii)	Water consumption	:	7265041 M ³	4419125 M ³	Water consumption was less wrt last year due to low generation.
(iii)	Process	:	1569248 M ³	954531 M ³	-do-
(iv)	Condenser Cooling	:	5674723 M ³	3451779 M ³	-do-
(v)	Domestic	:	21069 M ³	12815 M ³	-do-

S.No.	Name of the product	Process water Consumption per unit of product output.	
		2017-18	2018-19
1	Electricity	0.42 Ltr/Unit	0.46 Ltr/Unit*

* Sp Process Water Consumption was slightly more as compared to last year

2. Raw Material Consumption

Name of Raw Material	Name of the product	Consumption of Raw Material unit of output			
		2017-18		2018-19	
Coal	Electricity	Total Consumption(MT):	2385837	Total Consumption(MT)	1257567
		Specific Consumption per kw:	0.64 Kg/Unit*	Specific Consumption per kw	0.60Kg/Unit*

*Sp. Coal consumption was less compared to the previous year due to better GCV of Coal.

PART – C

Pollution discharged to Environment/Unit of output

(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutions discharged (mass/day)	Concentration of Pollutants in discharge (mass/volume)	Percentage of variation from prescribed Standards
Water Treated Effluent Discharge* <div> Unit Limit pH 5.5. to 9.0 SS < 100 mg/l Oil & Grease < 10 mg/l BOD₅ < 30 mg/l COD < 250 mg/l </div>	The Effluent Treatment facility for Stage I and II is common. Please refer Env Statement of Stage I.		
Air** <div> SPM-Unit 3 SPM-Unit 4 </div>	1537.07 1661.60 kg/day	44.3 46.7 mg/Nm ³	-

* Report Enclosed as Annexure 1

** - As per Test Report of MoEF approved Laboratory dated 28.03.2019 of Unit 3 & Unit 4 of Stage-2 respectively (Enclosed as Annexure 1). **Refer Environment Statement of Stage#1.**

PART – D

HAZARDOUS WASTES

(As specified under Hazardous wastes/management
& Handling Rules, 1989)

Hazardous Wastes	Total Qty (KG)	
	2017-18	2018-19
(a) From Process	41.91 KL(Spent Oil) 309.00 kg (Waste containing oil)	8.49 KL(Spent Oil)* 955.68 kg (Waste containing oil)**
(b) From Pollution Control facilities (ETP)	10.48 KL (Apportioned in the ratio of generation)	0.94 KL (Apportioned in the ratio of generation)

*- Spent Oil generation was less due to less Operation of plant.

** - Waste containing oil is more because one of the oil tanks was taken for cleaning.

The RPSCL has obtained Hazardous Waste Authorization from UPPCB for Collection & Storage of Hazardous waste.

- RPSCL has obtained Hazardous Waste Authorization from UPPCB for Collection & Storage of Hazardous waste.
- Waste / Spent Oil is collected at centrally located point in isolated storage area meant for them in sealed Drums, which is further sent to authorized recycler for disposal as per norms of MoEF.

PART – E

SOLID WASTES

Total Quantity

Solid Wastes:

Solid Wastes:	Total Qty (Metric tonne or MT)	
	2017-18	2018-19
(i) From Process	158285 (Bottom Ash)	78948 MT (Bottom Ash)
(ii) From Pollution Control Facilities		
• Ash	591766 MT (Fly Ash)	315791 MT (fly Ash)
c)	Ash in MT	Ash in MT
(i) Quantity recycled or re-utilized within unit	I. 51391	I. 117962
(ii) Sold*	II. 546593	II. 340563
(iii) Disposed	III. 193441	III. (-) 63787**

* The ash is given to various agencies free of cost.

** Total Ash Generation (Fly Ash and Bottom Ash) is less than previous year, as plant ran on 41.3% PLF only, due to low power demand, though actual ash utilization in FY 2018-19 is more than the ash generated during the year. Old stock of pond ash was also utilized in addition to the ash generated during the year

PART – F

Indicate disposal practice adopted for Hazardous as well as solid waste

- a) **Coal Ash:** As per MoEF guidelines, ash is being given to outside brick unit other than brick kiln, various cement industries for using ash as ingredients in their cement manufacturing units from our silo in closed trucks. Pond ash is lifted for Ash Pond dyke bund rising.
- b) **Used Batteries:** Collected centrally at store in isolated place for disposal to authorized agencies as per MoEF guidelines.
- c) **Hazardous waste:** Waste oil, Oil soaked cotton is collected in store for disposal to authorized agencies as per latest guidelines of MoEF.
- d) **E-Waste-** E-Waste is collected in store for disposal to authorized agencies as per latest guideline of MoEF.
- e) **Bio-Medical Waste-** Bio-medical waste is picked up by authorized agencies on daily basis from health centre.

PART – G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

Pollution Control facilities such as ETP/ STP help in conservation of water resources. The treated water from ETP & STP is used for Ash Handling & Horticulture. Also, the plant is operated on a CoC of more than 5 as against the designed CoC of more than 4 which is helping in further water conservation. All these measures effectively reduce the fresh water intake.

PART – H

Additional investment proposal for environmental protection abatement of pollution, prevention of pollution

1. Tree Plantation is being carried out in and around the plant premises. Total 18150 nos. of trees and shrubs have been planted in the FY 2018-19 (common for stage 1 & 2)
2. During Financial year 2018-19 total expenditure of Rs 1.7 Cr approximately done on horticulture & greenery development (common for stage 1 & 2).
3. Company has successfully passed the surveillance Audit for the Environment Management System Certification (ISO 14001:2015).
4. Continuous Air Quality Monitoring Stations (CAAQMS) have been installed in FY 2013-14, Continuous Effluent Monitoring System (CEMS) have been installed in FY 2014-15, and Connected data of Stack Emission, Effluent with CPCB Server in FY 2015-16, Online Coal Ash Analyser in FY 2017-18 and Remote Calibration Facility of CEMS in FY 2018-19 with an approximate investment of Rs 1.5 crore, 13 Lacs, 5 Lacs, 34 Lacs and 23.50 Lacs approximately respectively.

PART – I

Any other particulars for improving the quality of environment.

- (1) We are complying with all the directions and conditions of state and central pollution boards and regular Water & Air consents are in force.
- (2) Regular monitoring of Noise level, AAQ, Waste and Stack Gases is being done. Waste water treatment and recycling is in practice.
- (3) Almost 18150 Tree and shrubs Plantation has been done in the year 2018-19 for improving the quality of environment (commonly for Stage 1 & 2).
- (4) Water conservation by Ash water recirculation.
- (5) To further improve the treated water quality at plant STP, Dual Media Filter has been provided.
- (6) Tree plantation, Prabhat Pheri and Quiz programmes organized on World Environment Day-2018 to increase environmental awareness among employees (Photographs enclosed as **Annexure_3**). **Refer Environment Statement of Stage#1.**
- (7) Training to employees from different departments has been given on Environmental Management System (ISO 14001:2015) and environmental aspect impact assessment
- (8) Good Practices/ Environmental Improvement Plans were made to achieve continual Improvement of Environment.

Note: Environmental Monitoring reports (AAQ, Noise, STP, and ETP) are enclosed as Annexure 3.

Following Environmental Improvement Plans were done during the FY 2018-2019

- (1) Waste Disposal - Different color coding of drums for Oily waste and General Waste, Segregation of E-waste, Electrical waste
 - (2) PCC of the oil storage shed at maintenance yard of all contractors' area
 - (3) Agreement for Biomedical waste disposal with approved agency and renewal of Authorization till 08.12.2019.
 - (4) Remote Calibration facility with CPCB server upgraded for online Stack Emission Data as per CPCB Guideline.
 - (5) Re-utilising the treated effluent from Coal Settling Pit for dust suppression in CHP Area
 - (6) Interconnecting sewage water of admin building and fire station with STP for optimum utilization of Sewage Treatment Plant. Also new STP of 10 KLD installed at CHP area to treat sewage water.
-

Advanced Environmental Testing And Research Lab P. Ltd.



CIN: U73100MP2002PTC015352

Approved: by Ministry of Environment, Forest and Climate Change (MoEF&CC)
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18001:2007

TEST REPORT

Company Name	Rosa Power Supply Co. Ltd.	Date of Issue	02/04/2019
Address	Rosa, Shahjahanpur, UP, India	Date of Sample Received	01/03/2019 To 31/03/2019
Location	Stack Monitoring	Monitoring Conducted by	Sampling Staff
Source of Monitoring	Boiler Stack -3 (Bi-Flue) of Stage - 2	Environmental Conditions during Sampling	Sunny
Lab. Ref. No.	AETRL/2019/CHEM/ST/577	Material of Construction	MS
URL NO.	TC4705-19-0-0000U366P	Height From Ground Level	65 M

Stack Area / Shape	Boiler Stack - 3
Capacity	05 M/ Circular
Type of Fuel Used/Consumption per day	1025 TPH
Thimble No.	Coal/ 190tph
Stack Height (M)	M-3,5,8&12
	275

TEST RESULT

Date of Monitoring	Temperature (°C)	Velocity (m/s)	SO ₂ (mg/Nm ³)	NO _x * (mg/Nm ³)	P.M. (mg/Nm ³)
19.03.19	127.00	27.19	1637.33	324.92	44.50
25.03.19	128.00	27.75	1616.00	316.40	45.80
28.03.19	127.00	28.25	1633.07	320.24	44.30
SHUT DOWN					

(Authorized signature)

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OHSAS
18001:2007

TEST REPORT

Company Name	Rosa Power Supply Co. Ltd.	Date of Issue	02/04/2019
Address	Rosa, Shahjahanpur, UP, India	Date of Sample Received	01/03/2019 To 31/03/2019
Location	Stack Monitoring	Monitoring Conducted by	Sampling Staff
Source of Monitoring	Boiler Stack -4 (Bi-Flue) of Stage - 2	Environmental Conditions during Sampling	Sunny
Lab. Ref. No.	AETRL/2019/CHEM/ST/578	Material of Construction	MS
URL NO.	TC4705-19-0-0000U367P	Height From Ground Level	65 M

Stack Area / Shape	Boiler Stack - 4
Capacity	05M/ Circular
Type of Fuel Used/Consumption per day	1025 TPH
Thimble No.	Coal/ 190tph
Stack Height (M)	M-4, 6, 9&13
	275

TEST RESULT

Date of Monitoring	Temperature (°C)	Velocity (m/s)	SO ₂ (mg/Nm ³)	NO _x (mg/Nm ³)	P.M. (mg/Nm ³)
05.03.19	127.00	27.72	1658.67	317.78	44.80
28.03.19	129.00	27.79	1648.00	303.62	46.70
SHUT DOWN					
SHUT DOWN					

(Authorized signature)