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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
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www.reliancepower.co.in

Ref: RPSCL/Env/Statement/5/2021/3

Date: 06.05.2021

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 2020-21 for Stage I & II

Dear Sir,

This is with reference to the Air Consent No- 71860/UPPCB/Bareilly (UPPCBRO)/CTO/Air/Shahjahanpur/2019, Dt: 21.02.2020 and Water Consent No- 72030/UPPCB/Bareilly (UPPCBRO) /CTO /water/Shahjahanpur/2019 Dt: 19.02.2020 for **Stage I** and Air Consent No- 71851/UPPCB/Bareilly (UPPCBRO)/CTO/Air/Shahjahanpur/2019 Dt: 19.02.2020 and Water Consent No 71927/UPPCB/ Bareilly (UPPCBRO)/CTO/water/SHAHJAHANPUR/2019 Dt: 28-2-2020 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 2020-21 both in soft as well as hard copy.

Thanking You,

For Rosa Power Supply Co. Ltd.



(Authorized Signatory)



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

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ENVIRONMENTAL STATEMENT

OF

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

2 x 300 MW (STAGE-I)

FINANCIAL YEAR ENDING THE 31st MARCH, 2021

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, 2021.

PART – A

- (i) Name and address of the : Mr. H S Tomar
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 : March 2010
- (iv) Date of Last environmental statement : 08.05.2020
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 2020-21	FY 2020-21	Remarks
(I)	Gross Energy Generation (MU)	:	3065.2	3297.55	Unit Generation is more than previous year.
(ii)	Water consumption	:	6491718 M ³	1715178 M ³	Total Water Consumption is more due to more generation than previous year.
(iii)	Process	:	1402211 M ³	1688078 M ³	-do-
(iv)	Condenser Cooling	:	5070681 M ³	6104436 M ³	-do-
(v)	Domestic	:	18826 M ³	22664 M ³	-do-

S.No.	Name of the product	Process water Consumption per unit of product output.	
		2020-21	2020-21
1	Electricity	0.46 Ltr/Unit	0.51 Ltr/ Unit*

*The specific process water consumption was more due to more PLF in summer season.

2. Raw Material Consumption

Name of Raw Material	Name of the product	Consumption of Raw Material unit of output			
		2019-20		2020-21	
Coal	Electricity	Total Consumption (MT)	1810440	Total Consumption (MT)	1928052
		Specific Consumption per kw	0.59	Specific Consumption per kw	0.58

*The Specific Coal consumption was almost same as compared to previous year due to efficient Operation.

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/m ³	Percentage of variation from prescribed Standards
Treated Effluent Discharge*				
Unit	Limit			% below –
pH	5.5. to 9.0	----	----	70%
SS	< 100 mg/l	0.02	0.024	95%
Oil & Grease	< 10 mg/l	0.00	0.0005	86.7%
BOD _{3 day}	< 30 mg/l	0.00	0.004	82.4%
COD	< 250 mg/l	0.02	0.028	
Air**				
SPM-Unit 1		1719.68	45.10	-
SPM- Unit 2		1723.63	47.20	
		Kg/ day	mg/Nm ³	

*-Above data taken from test report of MoEF approved Laboratory for the sample taken on 30.03.2021 and average treated effluent flow is 0.30 CuM/day. (Refer Annexure_1.)

** - As per Test Report of MoEF approved Laboratory dated 03.04.2021 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)	
	2019-20	2020-21
(a) From Process	9.71 KL (Spent oil) 944.33 kg (Waste containing oil)	13.19 KL (Spent oil) 937.82 kg (Waste containing oil)
(b) From Pollution Control facilities	1.94 KL	2.64 KL

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)	
	2019-20	2020-21
(i) From Process	117016 MT (Bottom Ash)	137361 MT (Bottom Ash)
(ii) From Pollution Control Facilities		
• Ash	• 468062 MT	• 549444 MT
• STP Sludge	• 34 MT	• 31 MT
c)		
I. Quantity recycled or re-utilized within unit	I. 1098 31	I. 2884 34
II. Sold*	II. 592133 -----	II. 2445241** -----
III. Disposed	III. (-) 8152** -----	III. (-)1761321*** -----

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

** As per "Feasibility Analysis Report for safe evacuation of Ash from existing operating ash pond at Rosa Thermal" by IIT Roorkee, 3582138 MT Ash should be kept for bund safety and which cannot be evacuated. Hence 3582138 MT from legacy of Ash is treated as ash utilization in view of bund safety.

***Total Ash Utilization is more than total Ash Generation (Fly Ash and Bottom Ash). 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 13405 nos. of trees and shrubs have been planted in the FY 2020-21 (common for stage 1 & 2). Total 579273 trees has been planted so far in area of 283 Ha i.e approx 46% against 33% greenbelt of MoEF Guideline.
2. During Financial year 2020-21 total expenditure of Rs 1.5Cr 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, Remote Calibration Facility in FY 2019-20 of CEMS and modification STP in FY 2020-21 with an approximate investment of Rs 1.5 crore, 13 Lacs, 5 Lacs, 34 Lacs, 23.50 Lacs and 18 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 13405 Tree and shrubs Plantation has been done in the year 2020-21 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-2020 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 2020-21

- (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 Bio Medical Waste Authorization
 - (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.
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ENVIRONMENTAL STATEMENT

OF

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

2 x 300 MW (Stage-II)

FINANCIAL YEAR ENDING THE 31st MARCH, 2021

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, 2021.

PART – A

(i) Name and address of the : Mr. H S Tomar
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operation or process

Rausar Kothi

Hardoi Road

Distt. – Shajahanpur(U.P.)

(ii) Production Capacity : 2X300 MW

(iii) Year of Establishment : Jan 2012

(iv) Date of Last environmental statement : 08.05.2020
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)

			FY 2019-20	FY 2020-21	Remarks
(I)	Gross Energy Generation (MU)	:	2975.4	3453.51	Unit Generation is more than previous year.
(ii)	Water consumption	:	6169706 M ³	6388105 M ³	Total Water Consumption is more due to more generation than previous year.
(iii)	Process	:	1332656 M ³	1379831 M ³	-do-
(iv)	Condenser Cooling	:	4819157 M ³	4989749 M ³	-do-
(v)	Domestic	:	17892 M ³	18526 M ³	-do-

S.No.	Name of the product	Process water Consumption per unit of product output.	
		FY 2019-20	FY 2020-21
1	Electricity	0.45 Ltr/Unit	0.40 Ltr/Unit*

*The specific process water consumption was more due to more PLF in summer season .

2. Raw Material Consumption

Name of Raw Material	Name of the product	Consumption of Raw Material unit of output			
		FY 2019-20		FY 2020-21	
Coal	Electricity	Total Consumption(MT):	1813415	Total Consumption(MT)	2092675
		Specific Consumption per kw:	0.61Kg/Unit*	Specific Consumption per kw	0.61Kg/Unit*

*Sp. Coal consumption was almost same compared to the previous year due to efficient operation.

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> <div>Unit</div> <div>Limit</div> </div> <p> pH 5.5. to 9.0 SS < 100 mg/l Oil & Grease < 10 mg/l BOD₅ < 30 mg/l COD < 250 mg/l </p>	The Effluent Treatment facility for Stage I and II is common. Please refer Env Statement of Stage I.		
Air** SPM-Unit 3 SPM-Unit 4	1545.18 1771.48 kg/day	42.6 45.2 mg/Nm ³	-

* Report Enclosed as Annexure 1 of Stage_1

** - As per Test Report of MoEF approved Laboratory dated 26.03.2021 of Unit 3 & dated 03.04.2021 of Unit 4 of Stage-2 respectively (Enclosed as **Annexure 2**).

PART – D

HAZARDOUS WASTES

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

Hazardous Wastes	Total Qty (KG)	
	FY 2019-20	FY 2020-21
(a) From Process	9.42 KL(Spent Oil) 916.67 kg (Waste containing oil)	13.81 KL(Spent Oil) 982.18 kg (Waste containing oil)
(b) From Pollution Control facilities	1.88 KL (Apportioned in the ratio of generation)	2.76 KL (Apportioned in the ratio of generation)

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

- RPSCL has obtained renewed Hazardous Waste Authorization from UPPCB for Collection & Storage of Hazardous waste in 2020.
- 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)	
	FY 2019-20	FY 2020-21
(i) From Process	113588 MT (Bottom Ash)	143857 MT (Bottom Ash)
(ii) From Pollution Control Facilities		
• Ash	454350 MT(Fly Ash)	575430 MT(Fly Ash)
c)	Ash in MT	Ash in MT
I. Quantity recycled or re-utilized within unit	I. 1065	IV. 3021
II. Sold*	II. 574786	V. 2560891**
III. Disposed	III. (-) 7914**	VI. (-) 1844624***

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

** As per "Feasibility Analysis Report for safe evacuation of Ash from existing operating ash pond at Rosa Thermal" by IIT Roorkee, 3582138 MT Ash should be kept for bund safety and which cannot be evacuated. Hence 3582138 MT from legacy of Ash is treated as ash utilization in view of bund safety.

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