

JAYPEE NIGRIE SUPER THERMAL POWER PLANT

A DIVISION OF JAIPRAKASH POWER VENTURES LIMITED

ISO CERTIFIED : 9001:2015, 14001:2015 & 45001:2018



QUALITY

ENVIRONMENT

HEALTH & SAFETY

JNSTPP/ENV/2021/02

Date: 05/07/2021

To
The Member Secretary,
M.P. Pollution Control Board,
Parayavaran Parisar, E-5 Arera Colony
Bhopal (M.P.) - 462016

Subject - Quarterly Air & Water Quality Monitoring Report under Air & Water (Prevention & Control of Pollution) Act 1981 & 1974 respectively.

Dear Sir,

Please find enclosed herewith Ambient Air Quality, Stack Monitoring, ETP Treated Water (RO Permeate) & STP Treated Water Analysis Report for the **Quarter (April 2021 - June 2021)** for Jaypee Nigrie Super Thermal Power Plant of M/s Jaiprakash Power Ventures Ltd.

Thanking You,

Yours Sincerely,

For Jaypee Nigrie Super Thermal Power Plant
(A Division of Jaiprakash Power Ventures Ltd.)

Nadim Ahmad Khan
V.P - (Chemistry & Environment)

Encl: - As Above

CC. **Regional Officer**
M.P. Pollution Control Board,
Bhakuar, Naugadh,
District: Singrauli (MP) - 486669

- For kind information please.

Site : Jaypee Nigrie Super Thermal Power Plant, Village & P.O.-Nigrie, Tehsil-Sarai, Distt.-Singrauli (M.P.)
Ph: +91 (7801) 286021 - 36, Fax: +91 (7801) 286020, Email: jpthermal.sidhi@jalindia.co.in
Corp. Office : 'JA House', 63 Basant Lok, Vasant Vihar, New Delhi - 110 057 (India)
Ph: +91 (11) 49828679, 49828642, Fax: +91 (11) 26145389
Regd. Office: Complex of Jaypee Nigrie Super Thermal Power Plant, Nigrie
Tehsil - Sarai, Distt. - Singrauli - 486669 (Madhya Pradesh)
Ph: +91 (7801) 286021 - 39, Fax: +91 (7801) 286020
Website: www.jppowerventures.com **CIN**: L40101MP1994PLC042920

JAYPEE NIGRIE SUPER THERMAL POWER PLANT
(A Division of Jaiprakash Power Ventures Limited)

AMBIENT AIR QUALITY MONITORING REPORT

MONTH: April 2021

LOCATION : Near STP (Colony Area)						
Name of Week	Particulars	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
1 st	Weekly Average	25.8	53.1	5.8	12.2	0.409
2 nd	Weekly Average	26.2	52.8	6.9	13.0	0.351
3 rd	Weekly Average	24.0	47.0	4.9	11.4	0.387
4 th	Weekly Average	27.3	57.3	5.1	10.9	0.459
LOCATION : Near H2 Gas Cylinder Shed						
Name of Week	Particulars	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
1 st	Weekly Average	32.4	64.6	7.1	12.1	0.478
2 nd	Weekly Average	33.3	63.9	9.3	13.8	0.552
3 rd	Weekly Average	21.6	57.6	8.6	14.1	0.440
4 th	Weekly Average	30.0	61.7	6.3	10.5	0.603
LOCATION : Near Watch Tower 22 (Cement Grinding Unit)						
Name of Week	Particulars	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
1 st	Weekly Average	32.5	66.0	7.4	12.8	0.488
2 nd	Weekly Average	31.1	65.1	8.6	16.7	0.538
3 rd	Weekly Average	25.2	53.7	6.0	12.1	0.477
4 th	Weekly Average	33.4	68.6	8.3	16.9	0.648
LOCATION : Near Fuel Storage Tank						
Name of Week	Particulars	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
1 st	Weekly Average	37.0	71.7	8.3	15.3	0.603
2 nd	Weekly Average	41.5	78.0	7.9	14.5	0.565
3 rd	Weekly Average	32.3	64.3	5.1	15.9	0.652
4 th	Weekly Average	41.9	77.2	9.5	17.5	0.684

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AMBIENT AIR QUALITY MONITORING REPORT

MONTH: May 2021

LOCATION : Near STP (Colony Area)						
Name of Week	Particulars	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
1 st	Weekly Average	19.6	40.7	4.2	12.3	0.347
2 nd	Weekly Average	13.0	33.5	4.6	10.7	0.321
3 rd	Weekly Average	14.7	31.3	3.0	9.7	0.286
4 th	Weekly Average	17.0	39.1	5.7	12.6	0.359
LOCATION : Near H2 Gas Cylinder Shed						
Name of Week	Particulars	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
1 st	Weekly Average	29.2	59.8	5.8	11.2	0.511
2 nd	Weekly Average	20.4	43.2	7.6	12.0	0.583
3 rd	Weekly Average	23.6	47.9	6.2	12.4	0.394
4 th	Weekly Average	20.8	49.5	7.5	11.4	0.521
LOCATION : Near Watch Tower 22 (Cement Grinding Unit)						
Name of Week	Particulars	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
1 st	Weekly Average	22.9	52.2	8.0	15.3	0.542
2 nd	Weekly Average	20.4	42.1	6.2	11.7	0.559
3 rd	Weekly Average	16.1	37.4	4.7	10.6	0.460
4 th	Weekly Average	21.9	45.4	9.0	13.5	0.481
LOCATION : Near Fuel Storage Tank						
Name of Week	Particulars	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
1 st	Weekly Average	31.9	72.0	5.4	16.9	0.697
2 nd	Weekly Average	20.3	43.7	4.9	13.5	0.502
3 rd	Weekly Average	22.5	46.9	6.5	14.8	0.555
4 th	Weekly Average	25.1	54.4	6.9	17.0	0.640

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AMBIENT AIR QUALITY MONITORING REPORT

MONTH: June 2021

LOCATION : Near STP (Colony Area)						
Name of Week	Particulars	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	CO (mg/m ³)
1 st	Weekly Average	16.5	37.2	5.0	12.5	0.421
2 nd	Weekly Average	18.5	36.0	4.1	11.3	0.330
3 rd	Weekly Average	11.4	27.6	2.6	9.3	0.245
4 th	Weekly Average	11.2	23.4	4.0	8.8	0.297
LOCATION : Near H2 Gas Cylinder Shed						
Name of Week	Particulars	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	CO (mg/m ³)
1 st	Weekly Average	21.1	57.6	8.5	13.9	0.399
2 nd	Weekly Average	15.5	41.8	6.3	11.9	0.457
3 rd	Weekly Average	16.8	35.5	5.7	12.3	0.414
4 th	Weekly Average	18.4	39.5	6.7	11.8	0.428
LOCATION : Near Watch Tower 22 (Cement Grinding Unit)						
Name of Week	Particulars	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	CO (mg/m ³)
1 st	Weekly Average	32.7	72.7	8.5	16.4	0.604
2 nd	Weekly Average	19.2	52.9	7.5	12.9	0.529
3 rd	Weekly Average	13.5	33.1	5.9	10.8	0.346
4 th	Weekly Average	16.0	39.2	6.7	12.0	0.399
LOCATION : Near Fuel Storage Tank						
Name of Week	Particulars	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	CO (mg/m ³)
1 st	Weekly Average	32.1	72.8	7.6	15.0	0.598
2 nd	Weekly Average	22.3	48.2	3.9	12.8	0.503
3 rd	Weekly Average	17.7	38.5	4.8	11.9	0.459
4 th	Weekly Average	16.7	34.2	6.6	12.4	0.496

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QUARTERLY REPORT OF PARTICULATE MATTER EMISSION FROM POINT SOURCE (STACK)

Annexure - II

Month - April 2021 to June 2021

S.NO.	UNIT STACK ATTACHED WITH PCE (POLLUTION CONTROLLING EQUIPMENT)	DUST CONC. (mg/Nm ³)		
		Apr-21	May-21	Jun-21
1	Unit - I (1X660 MW) - ESP	47.02	47.55	41.96
2	Unit - II (1X660 MW) - ESP	46.87	47.88	47.47

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Annexure - III

QUATERLY ETP TREATED WATER (RO PERMEATE) ANALYSIS REPORT

Period : April 2021 to June 2021

Sr. No.	Testing Parameters	Norms as per MPPCB	Observed value		
			Apr-21	May-21	Jun-21
1	pH	5.5 - 9.0	7.86	6.93	7.78
2	Suspended Solids (mg/l)	100	NIL	NIL	NIL
3	BOD (mg/l) 3rd days at 27°C	30	NIL	NIL	1.0
4	COD (mg/l)	250	8.00	5.60	12.00
5	O & G (mg/l)	10	NIL	NIL	NIL
6	TDS (mg/l)	2100	14.2	14.4	15.2
7	Chlorides (mg/l)	1000	4.96	4.37	5.96

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Annexure - IIIA

QUARTERLY STP TREATED WATER ANALYSIS REPORT

Period : April - 2021 to June - 2021

Sr. No.	Testing Parameters	Norms as per MPPCB	Observed value (STP - 100 KLD)			Observed value (STP - 1000 KLD)		
			Apr-21	May-21	Jun-21	Apr-21	May-21	Jun-21
1	pH	6.5 - 9.0	7.15	7.41	7.78	7.08	7.55	7.41
2	Suspended Solid (mg/l)	100	13.0	14.0	17.0	24.0	16.0	20.0
3	BOD (mg/l) 3rd days at 27°C	30	9.0	5.0	9.0	16.0	12.0	19.0
4	COD (mg/l)	250	72.0	80.0	88.0	104.0	112.0	160.0
5	O & G (mg/l)	10	1.60	1.80	2.16	2.40	2.00	2.44

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