

## 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

**JAIPRAKASH**  
POWER VENTURES LIMITED

JNSTPP/ENV/2022-23/03

Date - 11.01.2023

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 Emission Monitoring, ETP Treated Water (RO Permeate) & STP Treated Water Analysis Reports for the **Quarter (October, 2022-December, 2022)** for Jaypee Nigrie Super Thermal Power Plant (A Division of 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*

**Nadim Ahmad Khan**  
Vice - President (Chemistry & Environment)

Encl: - As Above

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

- For kind information please.

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

**AMBIENT AIR QUALITY MONITORING REPORT**

**MONTH: October - 2022**

LOCATION : Near STP -(Colony Area)						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	19.2	41.5	5.1	11.0	0.52
2 <sup>nd</sup>	Weekly Average	21.1	43.8	6.0	10.3	0.54
3 <sup>rd</sup>	Weekly Average	24.8	50.2	6.2	13.3	0.54
4 <sup>th</sup>	Weekly Average	25.0	51.0	6.9	11.7	0.51
LOCATION : Near H2 Gas Cylinder Shed						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	23.0	46.9	6.5	13.3	0.59
2 <sup>nd</sup>	Weekly Average	25.1	51.8	7.5	11.9	0.52
3 <sup>rd</sup>	Weekly Average	28.2	56.4	9.4	15.2	0.61
4 <sup>th</sup>	Weekly Average	24.7	52.5	7.0	11.0	0.55
LOCATION : Near Watch Tower 22 (Cement Grinding Unit)						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	22.7	46.1	5.6	12.9	0.51
2 <sup>nd</sup>	Weekly Average	23.7	48.4	5.9	10.9	0.52
3 <sup>rd</sup>	Weekly Average	29.0	60.6	8.3	14.8	0.59
4 <sup>th</sup>	Weekly Average	29.7	60.7	7.3	14.1	0.53
LOCATION : Near Fuel Storage Tank						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	24.8	52.4	8.4	14.2	0.58
2 <sup>nd</sup>	Weekly Average	26.9	54.3	6.9	11.6	0.55
3 <sup>rd</sup>	Weekly Average	31.0	61.9	9.4	14.8	0.67
4 <sup>th</sup>	Weekly Average	28.6	59.2	8.0	12.4	0.59

For Jaypee Nigrie Super Thermal Power Plant

  
Authorized Signatory





**JAYPEE NIGRIE SUPER THERMAL POWER PLANT**  
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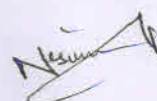
**AMBIENT AIR QUALITY MONITORING REPORT**

**MONTH: November - 2022**

LOCATION : Near STP - (Colony Area)						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	21.6	46.2	6.3	12.5	0.53
2 <sup>nd</sup>	Weekly Average	20.1	45.1	6.0	12.1	0.51
3 <sup>rd</sup>	Weekly Average	22.3	47.1	6.3	12.6	0.56
4 <sup>th</sup>	Weekly Average	23.6	49.7	6.9	13.7	(<0.5)
LOCATION : Near H2 Gas Cylinder Shed						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	25.1	51.3	7.0	13.2	0.52
2 <sup>nd</sup>	Weekly Average	23.0	45.9	6.7	12.7	0.59
3 <sup>rd</sup>	Weekly Average	23.9	48.0	6.9	11.9	0.53
4 <sup>th</sup>	Weekly Average	25.3	52.2	6.4	11.9	0.55
LOCATION : Near Watch Tower 22 (Cement Grinding Unit)						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	25.5	50.7	6.4	13.0	0.52
2 <sup>nd</sup>	Weekly Average	26.8	52.9	6.9	13.4	0.57
3 <sup>rd</sup>	Weekly Average	31.1	58.8	7.8	14.6	0.53
4 <sup>th</sup>	Weekly Average	27.6	56.1	7.1	13.2	0.54
LOCATION : Near Fuel Storage Tank						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	26.7	52.8	9.0	15.3	0.59
2 <sup>nd</sup>	Weekly Average	25.8	51.2	6.1	11.8	0.51
3 <sup>rd</sup>	Weekly Average	26.1	51.7	7.2	14.4	0.57
4 <sup>th</sup>	Weekly Average	27.1	54.2	9.4	15.8	0.55

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**AMBIENT AIR QUALITY MONITORING REPORT**

**MONTH: December - 2022**

LOCATION : Near STP -(Colony Area)						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	21.9	46.7	5.9	12.7	0.54
2 <sup>nd</sup>	Weekly Average	22.3	46.5	6.5	12.6	0.52
3 <sup>rd</sup>	Weekly Average	27.8	51.6	7.5	13.6	0.57
4 <sup>th</sup>	Weekly Average	23.1	46.0	5.8	12.0	0.51
LOCATION : Near H2 Gas Cylinder Shed						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	25.4	52.0	7.6	13.0	0.52
2 <sup>nd</sup>	Weekly Average	24.5	47.5	7.1	13.4	0.63
3 <sup>rd</sup>	Weekly Average	26.9	54.0	8.9	15.1	0.58
4 <sup>th</sup>	Weekly Average	25.7	52.0	6.0	12.1	0.53
LOCATION : Near Watch Tower 22 (Cement Grinding Unit)						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	26.9	52.6	6.8	13.6	0.52
2 <sup>nd</sup>	Weekly Average	26.6	53.6	7.5	14.6	0.59
3 <sup>rd</sup>	Weekly Average	31.9	63.9	9.0	15.2	0.53
4 <sup>th</sup>	Weekly Average	29.9	61.9	8.5	12.3	0.62
LOCATION : Near Fuel Storage Tank						
Name of Week	Particulars	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	PM10 ( $\mu\text{g}/\text{m}^3$ )	SO2 ( $\mu\text{g}/\text{m}^3$ )	NO2 ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1 <sup>st</sup>	Weekly Average	26.6	52.0	8.3	14.0	0.59
2 <sup>nd</sup>	Weekly Average	24.2	51.4	6.3	11.9	0.52
3 <sup>rd</sup>	Weekly Average	28.9	56.5	8.5	15.7	0.63
4 <sup>th</sup>	Weekly Average	31.0	60.1	9.8	15.0	0.59

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# JAYPEE NIGRIE SUPER THERMAL POWER PLANT

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## QUATERLY REPORT OF PARTICULATE MATTER EMISSION FROM POINT SOURCE (STACK)

Annexure - II

Period - October 2022 to December 2022

S.NO.	UNIT STACK ATTACHED WITH PCE (POLLUTION CONTROLLING EQUIPMENT)	AVG. DUST CONC. (mg/Nm <sup>3</sup> )		
		Oct-22	Nov-22	Dec-22
1	Unit - I (1X660 MW) - ESP	38.04	34.77	40.34
2	Unit - II (1X660 MW) - ESP	39.86	26.39	39.73

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Annexure - III

**QUATERLY ETP TREATED (RO - Permeate) WATER ANALYSIS REPORT**

Period : October - 2022 to December - 2022


Sr. No.	Testing Parameters	Norms as per MPPCB	Observed value		
			Oct-22	Nov-22	Dec-22
1	pH (at 25°C Temp.)	5.5 - 9.0	7.53	7.41	7.29
2	SS (mg/l)	100.0	*BLQ(**LOQ-1.0)	*BLQ(**LOQ-1.0)	*BLQ(**LOQ-1.0)
3	BOD (mg/l) 3rd days at 27°C	30.0	*BLQ(**LOQ-2.0)	*BLQ(**LOQ-2.0)	*BLQ(**LOQ-2.0)
4	COD (mg/l)	250.0	7.68	6.40	9.60
5	Oil & Grease (mg/l)	10.0	*BLQ(**LOQ-0.4)	*BLQ(**LOQ-0.4)	*BLQ(**LOQ-0.4)
6	TDS (mg/l)	2100.0	12.0	15.0	14.4
7	Chlorides (mg/l)	1000.0	3.18	3.77	2.58

\*BLQ - Below Limit of Quantification

\*\*LOQ - Limit of Quantification

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Annexure - IIIA

**QUATERLY STP TREATED WATER ANALYSIS REPORT**

Period : October - 2022 to December - 2022

Sr. No.	Testing Parameters	Norms as per MPPCB	Observed value (STP - 100 KLD)			Observed value (STP - 1000 KLD)		
			Oct-22	Nov-22	Dec-22	Oct-22	Nov-22	Dec-22
1	pH (at 25°C Temp.)	6.5 - 9.0	7.22	7.18	7.25	7.35	7.42	7.31
2	S.S (mg/l)	100.0	14.0	22.0	19.0	28.0	35.0	24.0
3	BOD (mg/l) 3rd days at 27°C	30.0	7.0	10.0	8.0	14.0	16.0	13.0
4	COD (mg/l)	250.0	38.4	52.2	46.1	76.8	62.4	72.9
5	Oil & Grease (mg/l)	10.0	1.60	1.80	1.00	1.80	2.40	2.00
6	Fecal Coliform (MPN/100ml)	1000.0	17.0	21.0	14.0	27.0	26.0	30.0

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