

Factory/Plant in Operation: Jaypee Nigrie Super Thermal Power Plant at Nigrie.

Introduction:

Jaiprakash Associates Ltd. (JAL), the flagship company of the Jaypee Group. JAL was formed due to merger of Jaiprakash Industries (JIL) and Jaiprakash Cement (JCL). JAL is the Engineering and Construction arm of the Jaypee group focused on development of River Valley and Hydro Electric Projects and a leader in Construction of River Valley and Hydropower Projects on turnkey basis for more than four decades. The company is currently executing various projects in Hydropower / Irrigation / other Infrastructure fields.

Jaiprakash Power Ventures Limited (JPVL) earlier known as Jaiprakash Hydro Power (JHPL), is a part of the Jaypee Group. The Company is engaged in the business of Generation of Power (Hydro & Thermal), Cement Grinding and Captive Coal Mining and Transmission of Power. Besides the 400MW Jaypee Vishnuprayag Hydro Power Plant in Uttarakhand; 500MW Phase I (of 1200 MW) Jaypee Bina Thermal Power Plant in Madhya Pradesh & (2X660 MW) 1320MW Jaypee Nigrie Supercritical Thermal Power Plant in Madhya Pradesh and Amelia (North) Coal Mine in Madhya Pradesh is dedicated Coal Mine to Jaypee Nigrie Super Thermal Power Plant. The Company has a Captive Cement Grinding Unit named 'Jaypee Nigrie Cement Grinding Unit' at Nigrie (M.P.) with a capacity of 2 MTPA, which is utilizing generated Fly Ash from Jaypee Nigrie Super Thermal Power Plant.

Jaypee Nigrie Super Thermal Power Plant is a Coal Based Super Critical Thermal Power Plant of (660×2) 1320 MW at Nigrie Village, Sarai Tehsil in Singrauli District of Madhya Pradesh State having adjacent Cement Grinding Unit. Jaypee Nigrie Super (Critical) Thermal Power Plant commenced its operations w.e.f. 3^{rd} September, 2014 (Unit # 01) & 24^{th} March, 2015 (Unit # 02).

Supply of Super-Critical Boilers was executed by L & T - Power Boilers while the Steam Turbine Generator was sourced from L & T - Power. Boilers installed are with Super-Critical Steam Parameters and with High Efficiency resulting in Less Fuel Consumption and Less Environmental Pollution.

Features:

- Greater operating flexibility.
- Improved thermal efficiency.
- Lower emission levels.
- Reduced ash generation.
- Reduced fuel consumption.
- Reduced PM, NOx emission.
- Reduction of carbon dioxide emission due to less consumption of fuel.
- Super critical boiler technology will achieve a higher net efficiency level for coal fired
 power stations. This technology's higher steam temperatures and pressure
 parameters offer the most economical way to improve plant efficiency and operating
 flexibility as well as achieve fuel cost savings and lower emissions for each KWH of
 electricity.

Environment:

Efforts are made to Conserve Ecological Balance without any harm done to the local flora & Fauna. JPVL has also taken Green Initiatives, afforestation, Resources Conservation, Water Conservation, and Air Quality Control & Noise Pollution Control.

"FORM - V"

(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31st March 2021

PART - A

(I)	Name & Address of the	Jaypee Nigrie Super Thermal Power Plant
	Owner / Occupier of the Industry	(JNSTPP)
	Operation or Process	(A Division of Jaiprakash Power Ventures
		Limited)
		PO- Nigrie, Distt. Singrauli-486669
		Madhya Pradesh
(II)	Industry category	17 Category / 'RED' Category
	Primary - (STC Code)	And Large Scale
	Secondary - (SIC Code)	(Namely Thermal Power Generation Plant),
		Major
(III)	Production Capacity	2x660 MW Power Generation
	Unit-I	
	Unit-II	
(IV)	Year of Establishment	
	Unit-I	Year 2014
	Unit-II	Year 2015
(V)	Date of last Environmental Statement	May, 2020
	Submitted	

<u>PART - B</u> Water & Raw Material Consumption

A. Water Consumption - m3/day

(I) Process - 413.60 Cooling - 19726.38 Domestic - 711.00

	Process Water Consumption per unit of			
Name of the Product	et Product Output (m³/MU) (1 Mu=1000000 KW)			
	During the Previous During the Cu			
	Financial Year (2019-2020)	Financial Year (2020-2021)		
Electricity	48.12	34.37		

(ii). Raw Material Consumption

		Consumption of Raw Material per Unit			
Name of the	Name of	Product Output			
Raw Material	Product	(MT/MU of Electricity) (1 Mu=1000000 KV			
		During the Previous	During the Current		
		Financial Year	Financial Year		
		(2019-2020)	(2020-2021)		
Coal	Electricity	580.62	566.14		
Fuel Oil (HFO & LDO)		0.1807	0.2684		
Chemicals-					
HCl		0.1073	0.1369		
H ₂ SO ₄		0.0338	0.0259		
NaOH		0.0776	0.0444		
Ammonia		0.0079	0.0062		
Hydrazine		0.00003	0.00001		
Alum		0.0247	0.0389		
NaOCl		0.0042	0.0083		
Hydrogen Gas		0.0014	0.0011		
CO ₂ Gas		0.0002	0.0001		
Chlorine Gas		0.0324	0.0461		
Ferric Chloride		0.0138	0.0032		
Dolomite		0.0091	0.0012		

<u>Total Electricity Generation MU</u> (1 MU=1000000 KW)

Name of Duadant	During Previous	During Current
Name of Product	Financial Year (19-20) MU	Financial Year (20-21) MU
Electricity	6312.59	8106.40

<u>PART - C</u> <u>Pollutant Discharged To Environment / Unit of Output</u>

(Parameters as specified in the consent issued)

S. No.	Pollutants	Quantity of Pollutants Discharged (Mass / day) (Tonnes/day)	Concentrations of Pollutants in discharged (Mass / Volume) (mg/Nm3)	Percentage of variation from prescribed standard with reasons		
(a)			Water			
(i)	Domestic		is being maintained and t sed in Horticulture & Gr			
(ii)	Industrial	Zero discharge is being maintained. Treated waste water is reused in Cooling Water makeup & sprinkling in coal handling plant.				
(b)			Air			
	Monitoring of A	mbient Air Quali	ty parameters within lim	its and report attached as		
			Annexure- I			
			Stack emission			
			(a) ESPs			
	Stack-I (Unit-I)	2.549	37.56	Within permissible limit		
	Parameter - PM	2.017	37.50	Within permissione mint		
	Stack-II (Unit-II)	2.828	41.66	Within permissible limit		
	Parameter - PM	2.020	71.00	Within permussible muit		

PART - D

Hazardous Wastes

As specified under Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2016

		Total Quantity (Kg)					
Haz	ardous Waste	During the Previous			During the Current		
		Financial Year (2019-2020)			Financial Year (2020-2021)		
		Used oil	Waste oil	Resins	Used oil	Waste oil	Resins
(a)	From Process	13,300 kg	Nil	Nil	15,100 kg	Nil	Nil
(b)	From Pollution						
	Control		NA			NA	
	Facilities.						

<u>PART - E</u> <u>Solid Wastes</u>

Solid Waste		Total Quantity			
		During the Previous	During the Current		
		Financial Year (2019-2020)	Financial Year (2020-2021)		
(a)	From Process	Bottom Ash (2,08,700 MT)	Bottom Ash (2,87,981 MT)		
(b)	From Pollution	Fly Ash (9,92,886 MT)	Fly Ash (11,51,925 MT)		
	Control facilities	All the collected material is	All the collected material is		
		utilized in manufacturing of	utilized in manufacturing of		
		PPC and Fly Ash Bricks.	PPC and Fly Ash Bricks.		

)	(i) Qty. recycled or		Fly Ash (10,178 MT) (Utilized
	reutilised within the		in adjacent Cement Grinding
	unit.		unit of Jaypee Nigrie)
	(ii) Sold	9,92,886 MT of Fly Ash	9,67,058.17 MT of Fly Ash
		utilized by Cement	utilized by Cement
		Manufacturers & Brick	Manufacturers & Brick
		Manufacturers (100% Fly	Manufacturers (100% Fly Ash
		Ash is being utilized.)	is being utilized.)
	(iii) Disposed	Bottom Ash (2,08,700 MT) is	Bottom Ash (2,87,981 MT) is
		disposed in Ash Pond.	disposed in Ash Pond.
		3,23,704 MT of Pond Ash	4,63,264.20 MT of Pond Ash
		used by Cement	used by Cement
		Manufacturers & Brick	Manufacturers & Brick
		Manufacturers & Low Lying	Manufacturers & Low Lying
		Area filling within the Plant	Area filling within the Plant
		Boundary as per the	Boundary as per the Approval
		Approval of MPPCB, H.O.,	of MPPCB, H.O., Bhopal vide
		Bhopal vide Letter No.	Letter No. क्रमांक / 225 / तक-
		क्रमांक / 225 / तक-सीई -2/	सीई -2/ PCB/ 2019 भो पाल
		PCB/ 2019 भोपाल दिनांक 27-	दिनांक 27-01-2020.
		01-2020.	

PART - F

PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

<u>Hazardous waste</u>: Generated Haz. Waste is being stored under covered shed at an isolated covered place; the floor is concreted & persons working at site have been provided with all required PPEs. From there the stored hazardous waste is being sold out to authorized recyclers.

15.10 MT of Used Oil has been sold out to the Authorized Recycler during 2020-2021.

<u>Solid waste:</u> Fly Ash & Bottom Ash are being generated in form of solid waste from Jaypee Nigrie Super Thermal Power Plant for which suitable provisions are made for its use.

• Fly Ash is being consumed by its adjacent Jaypee Nigrie Cement Grinding Unit & rest is transported to nearby Cement Plants (Jaypee Rewa, PCL Satna, Birla Corp Satna, KJS Maihar, VTC Maihar & UTCL, Bhagwar & UTCL, Bela and Other Brick manufacturing Units) for manufacturing of PPC and manufacturing of fly ash bricks.

Ash Water Recirculation System & Clarifier System:-

The Bottom ash slurry is being disposed through ash slurry pumps to ash dyke. In the ash dyke ash particles settles and the ash water is recovered from the dyke for re-circulation/re-use. The ash water flows from ash dyke to ash water recovery system. In the recovery system the ash water from the ash dyke is received at stilling chamber and pumped to flash mixer where required coagulants are being added. The water from the flash mixer flows to the clariflocculator where contaminated ash sludge being separated and the clear water from the clarifier pumped back to ash water sump for re-use.

Ash Ponds are lined with fine sand then HDPE (1 mm thickness) lining and over that PCC.
 Bottom Ash will also be suitably utilized after drying to meet the stipulation of Fly ash Notifications.



Ash Dyke Pond

PART - G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.

Following measures have been adopted for abatement of pollution, conservation of natural resources:-

a) Utilization of Fly Ash for the manufacturing of cement:

JNSTPP having capacity of 2 x 660 MW has the potential to generate 1.477 MTPA (Fly ash = 1.177 MTPA & Bottom Ash 0.30 MTPA). Generated Fly ash is consumed in adjacent Jaypee Nigrie Cement Grinding Unit & rest is transported to nearby Cement Plants (Jaypee Rewa, PCL Satna, Birla Corp Satna, KJS Maihar, VTC Maihar & Other Brick manufacturing Unit) for manufacturing of PPC and manufacturing of fly ash bricks. – This has resulted into Top Soil Conservation.

b) Installation of Sewage Treatment Plant & Effluent Treatment Plant (ETP): Adequate facilities for treatment of industrial waste water including blow down from Cooling Towers. The waste water is treated in the ETP with UF & RO system and the quality of treated water conforms to MPPCB standards as given in Consent Order and reused in makeup of condenser cooling water & dust suppression in CHP. Sewage Treatment Plant of 1000 KLD in Township & 100 KLD in Plant area have been installed and treated water is used for horticulture. – This has resulted into Water Conservation.

1000 KLD Sewage Treatment Plant



Waste water Treatment Plant (ETP)



c). Installation of APCDs at various sources:

Highly efficient Electrostatic Precipitators (ESPs) with efficiency of 99.93% have been installed for each boiler to meet particulate emission less than 50 mg/Nm3 with one field out of service at full load with worst coal. The ESP's engineering, supply and erection & commissioning work is done by M/s. BHEL (A Govt. of India Undertaking). Each ESP has six passes and each pass is having 16 fields (i.e. total 96 fields). We have installed 10 no. of bag filters at various point sources to control the fugitive emission.



Photograph of ESP

d) Online Monitoring system:

- ✓ Four Continuous Ambient Air Quality Monitoring Stations (Online/Real Time) are provided along the boundary considering the wind rose/wind directions of PM 10, PM 2.5, SO2, NOx & CO and the total data of the CAAQMS are connected with MPPCB server at Bhopal & CPCB server at Delhi.
- ✓ Online Continuous Emission Monitoring Analyzers installed to Monitor Emissions (PM, SO2 & NOx & Hg) for both boiler stacks and data is being transmitted to MPPCB & CPCB servers, and the results are well within the Norms.

CAAQMS Photographs





CEMS Photographs





Photo of CAAQMs & CEMS

e). Installation of Water Sprinkling Systems:

Water spraying arrangements are made for control of fugitive emissions from Coal Handling Plant and other areas by installation of Water Sprinklers.



Photograph of sprinkler at coal stacker

f). Noise Pollution Abatement Measures:

Provision of Acoustic Enclosures at Turbines & other Machineries to attenuate Noise Levels. Acoustic Enclosures of Machines have been provided to control Noise Levels.

g). Good housekeeping practice adopted:

Following measures have been taken for good housekeeping.

- ➤ The conveyor belts are fully covered.
- ➤ Scheduled maintenance of Pollution Control Devices is carried out.
- ➤ Coal Wagon bottom unloading System is installed.

Further the Company has obtained IMS - Integrated Management System Certificate covering ISO 9001:2015 (QMS – Quality Management System), ISO 14001:2015 (EMS - Environmental Management Systems) & ISO 45001:2007 (OHSAS - Occupational Health and Safety Assessment Series).



CHP and covered conveyer belts



Coal wagon unloading system

PART - H

ADDITONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.

Additional measures taken for Environmental Protection are as under:

Extensive plantation in and around the Plant:

We have a dedicated team of skilled horticulturists for the Afforestation and greenery development program at our plant under the supervision of senior experienced person. More than 33% of the area in and around the Power plant has been developed with green belt as per the CPCB guidelines. Total number of Plants Planted up to 31.03.2021 is

approximately 4.705 lakhs in 144.21 ha. (which includes cement Grinding Unit also). During this FY (April, 2020 – March, 2021) total of 0.5 lakhs of Trees have been planted.

Steps taken to protect plantation:

- 1. Barricading provided for protection of plants.
- 2. Two numbers of dedicated water tankers are provided for regular watering of plants.
- 3. Dedicated manpower is provided for regular watering & care of plants.
- 4. Tree Guards are provided for protection of the plants.



 $\underline{PART-I}$ ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

Water Harvesting Measures:

A surface water body is constructed in the township area for rain water harvesting.



Establishment of Environment Laboratory:

Environment Laboratory has been set up with well equipped facilities such as water & waste water testing instruments as well Air Quality Monitoring instruments.



Environment Cell

Concreting of Roads:

All internal roads in plant & township area are made Pucca.



CSR works:

- ➤ A separate budget earmarked for CSR activities. CSR study report already submitted to the ministry vide letter no. JPVL/JNSTPP/MOEF/2010 dated 20.01.2011 and 29.06.2011.
- For CSR activities capital outlay of more than Rs. 24 crores has been made.
- > The company is carrying out CSR activities in the vicinity of the Project as per the directions and guidance of the District Administration.
- Providing drinking water facility benefitting to the nearby villages (Nigrie, Niwas, katai
 & Hardi & Mahua Ganv and Chamrach and Joba).
- ➤ Unit is also investing on CSR Activities on Rural Development Projects like Plantation programs (Nigrie, Niwas, katai & Hardi & Mahua Ganv and Joba), Road development activities (Nigrie), women empowerment & providing furniture/building material to local offices (Aanganbari Kendr, Nigrie, Niwas & police Department, Thane: Sarai), Promotion of Safety/Cultural/ sports in Rural Areas/villages (Nigrie, Niwas), Construction of Temples in Papal Gaon, katai, Niwas & Restoration of Ponds in Katai, Niwas, Nigrie & Contribution of Diasaster Management and Promoting Education through Sardar Patel School under Jaiprakash Sewa Sansthan & Jay Jyoti School under Jaiprakash Sewa Sansthan & Gopad Viklang Sikasha Vikas Samiti, Village-Katai.
- ➤ Total expenditure incurred up to March, 2021 is Rs 4.967 Crores.
- ➤ Based on Need Base Assessment Study for development of nearby villages, an action plan was worked out for income generating projects for up-liftment of poor section of society.

The following activities were undertaken:

- Sardar Patel Uchchtar Madhyamik Vidyalaya started for up to class five w.e.f. July, 2011 and subsequently upgraded up to 10th class in July'2016 session.
- ➤ Free Education & Free Mid Day Meals provided to the children of affected village Nigrie & Sardar patel School, Nigrie.
- Free Health Check Up & Health cards provided to the 245 students.

- ➤ Roads have been laid down in Nigrie Village & free electricity supply to the Street Lights is provided in R & R Colony.
- Restoration & Refurbishment of water reservoirs & ponds taken place in nearby villages (Gambhira Talab & Bandhwatara Talab, Katai).
- ➤ Providing Mobile Hospital & Ambulance Service to affected villages (Nigrie, Niwas, katai & Hardi & Mahua Ganv and Chamrach and Joba).
- ➤ An Average of 3376 patients are being benefited every month by the Primary Health Center.
- ➤ A Dispensary was also setup in R & R colony. An Average of 643 patients are being benefited every month.

"Trasform Singrauli" Project under Indian government and MP Government:-

- ➤ Provided Free Medical Checkup facility & Free Medicines in Nigrie, Niwas, katai & Hardi & Mahua Ganv and Chamrach Villages.
- ➤ Continual supply of Protein Powder, Iron Syrups & Jaggery and Horse Gram to about 224 Pregnant Women in above mentioned 6 villages.
- ➤ Multi Vitamin Drops & Zinc Drops have been provided to Malnourished Babies in the villages.
- > Established/Started Kuteer Udyog, Training Centre for Stitching and honey bee keeping.
- > Groceries, Nose maks have been distributed in the villages nearby project area to protect villagers from COVID-19 Pandemic Disease.
- Expenditure incurred on "Trasform Singrauli" in FY 2020 21 is 7.42 Lakhs.

Swatch Bharath Mission:-

- ➤ 2500 Fruit Yielding plants have been planted through Gram Panachayath in 6 villages.
- ➤ Provided Utensil (Bartan) for Gopad Viklang Samiti.

Hindi Medium School - Free Education for nearby villagers:



Free Medical Camps:-



Free Medicines to all nearby Villagers:-

A 10 bed hospital is functional for medical check-up and treatment to the local habitats for the surrounding 10 villages. Almost 200 people avail the Medical facilities daily.



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

(Vinod Sharma)

Sr. President (St. M)

Sr. President Jaypee Nigrie Super Thermal Power Plant Nigne (A Unit of Jaiprakash Power Ventures Ltd.) Singrauli 486669 (M.P.)

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

AMBIENT AIR QUALITY MONITORING REPORT Period: April, 2020 - March 2021

		Near	STP - Colony	Area		
Month	Particulars	PM _{2.5} (μg/m ³)	PM ₁₀ (μg/m ³)	SO ₂ (μg/m ³)	NO2 (μg/m ³)	CO (mg/m³)
Apr-20		23.3	54.0	5.2	10.7	0.475
May-20	†	23.9	53.5	6.3	11.1	0.463
Jun-20	†	18.8	46.5	7.5	10.6	0.486
Jul-20	1	13.4	30.9	4.8	10.3	0.313
Aug-20		13.8	30.1	5.4	10.2	0.349
Sep-20	Monthly Average	17.7	37.6	6.2	11.7	0.440
Oct-20	Wiontiny Twerage	22.2	47.2	5.9	12.5	0.431
Nov-20		19.1	42.2	5.6	12.0	0.437
Dec-20		19.4	43.4	5.2	11.6	0.428
Jan-21	4	15.8	38.5	4.2	10.5	0.372
Feb-21	4	18.6	41.9	5.4	10.6	0.368
Mar-21		22.3	48.5	6.4	10.7	0.449
	T		I ₂ Gas Cylinder	1		
Month	Particulars	$PM_{2.5} \ (\mu g/m^3)$	$PM_{10} (\mu g/m^3)$	SO ₂ (μg/m ³)	NO2 (μg/m³)	CO (mg/m ³)
Apr-20	_	30.3	66.1	9.2	13.2	0.582
May-20	<u>↓</u>	23.6	58.1	8.4	13.0	0.539
Jun-20	4	28.8	61.4	10.1	16.5	0.531
Jul-20	-	18.6	39.9	7.7	14.4	0.566
Aug-20	4	16.6	40.6	6.8	12.4	0.489
Sep-20	Monthly Average	18.6	41.1	7.5	13.1	0.577
Oct-20	-	28.6	56.5	7.4	14.2	0.561
Nov-20	4	26.0	55.2	7.9	13.7	0.547
Dec-20	-	29.2	59.1	9.8	13.3	0.557
Jan-21	-	24.9	54.6	6.8	12.7	0.509
Feb-21	-	24.2	51.7	8.0	13.2	0.470
Mar-21	N.	30.4	60.8	9.6 Grinding Unit	13.9	0.567
Month	Particulars					CO (3)
	rarticulars	PM _{2.5} (μg/m ³)	PM ₁₀ (μg/m ³)	SO ₂ (μg/m ³)	NO2 (μg/m³)	CO (mg/m ³)
Apr-20		32.1	69.1	7.8	13.0	0.724
May-20	1			0.5	10.1	0.600
		29.0	61.5	9.5	12.4	0.620
Jun-20		21.4	52.2	8.9	15.4	0.529
Jun-20 Jul-20		21.4 21.1	52.2 45.8	8.9 7.4	15.4 12.7	0.529 0.402
Jun-20 Jul-20 Aug-20		21.4 21.1 18.1	52.2 45.8 42.4	8.9 7.4 6.5	15.4 12.7 12.1	0.529 0.402 0.461
Jun-20 Jul-20 Aug-20 Sep-20	Monthly Average	21.4 21.1 18.1 27.4	52.2 45.8 42.4 60.4	8.9 7.4 6.5 6.7	15.4 12.7 12.1 15.0	0.529 0.402 0.461 0.546
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20	Monthly Average	21.4 21.1 18.1 27.4 33.4	52.2 45.8 42.4 60.4 68.0	8.9 7.4 6.5 6.7 7.9	15.4 12.7 12.1 15.0 14.9	0.529 0.402 0.461 0.546 0.535
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20	Monthly Average	21.4 21.1 18.1 27.4 33.4 30.2	52.2 45.8 42.4 60.4 68.0 62.3	8.9 7.4 6.5 6.7 7.9 7.8	15.4 12.7 12.1 15.0 14.9 14.3	0.529 0.402 0.461 0.546 0.535 0.603
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20	Monthly Average	21.4 21.1 18.1 27.4 33.4 30.2 27.7	52.2 45.8 42.4 60.4 68.0 62.3 61.0	8.9 7.4 6.5 6.7 7.9 7.8 7.5	15.4 12.7 12.1 15.0 14.9 14.3 14.6	0.529 0.402 0.461 0.546 0.535 0.603 0.589
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21	Monthly Average	21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21	Monthly Average	21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21	Monthly Average	21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21	Monthly Average Particulars	21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21		21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21		21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³)	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³)	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 Tank SO ₂ (μg/m³)	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Month Apr-20		21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³) 32.9	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³)	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 ank SO ₂ (μg/m³) 7.7	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8 NO2 (μg/m³)	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540 CO (mg/m³)
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Month Apr-20 May-20		21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³) 32.9 29.7	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³) 64.9 61.8	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 ank SO ₂ (μg/m³) 7.7 8.1	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8 NO2 (μg/m³) 13.7	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540 CO (mg/m³) 0.677 0.654 0.748 0.542
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Month Apr-20 May-20 Jun-20		21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³) 32.9 29.7 33.6	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³) 64.9 61.8 67.1	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 Sank SO ₂ (μg/m³) 7.7 8.1	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8 NO2 (μg/m³) 13.7 13.8 15.9	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540 CO (mg/m³) 0.677 0.654 0.748
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Month Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20	Particulars	21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³) 32.9 29.7 33.6 21.7	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³) 64.9 61.8 67.1 45.7	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 Cank SO ₂ (μg/m³) 7.7 8.1 10.1 6.9	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8 NO2 (μg/m³) 13.7 13.8 15.9 14.6	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540 CO (mg/m³) 0.677 0.654 0.748 0.542
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Month Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20		21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³) 32.9 29.7 33.6 21.7 18.9 23.6 32.5	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³) 64.9 61.8 67.1 45.7 44.7 52.3 65.4	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 Sank SO ₂ (μg/m³) 7.7 8.1 10.1 6.9 7.1 7.0 7.8	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8 NO2 (μg/m³) 13.7 13.8 15.9 14.6 13.9 14.8 14.5	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540 CO (mg/m³) 0.677 0.654 0.748 0.542 0.601 0.642 0.619
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Month Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20	Particulars	21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³) 32.9 29.7 33.6 21.7 18.9 23.6 32.5 30.2	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³) 64.9 61.8 67.1 45.7 44.7 52.3 65.4 65.9	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 Sank SO ₂ (μg/m³) 7.7 8.1 10.1 6.9 7.1 7.0 7.8 7.3	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8 NO2 (μg/m³) 13.7 13.8 15.9 14.6 13.9 14.8 14.5 14.0	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540 CO (mg/m³) 0.677 0.654 0.748 0.542 0.601 0.642 0.619 0.582
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Month Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20	Particulars	21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³) 32.9 29.7 33.6 21.7 18.9 23.6 32.5 30.2 31.9	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³) 64.9 61.8 67.1 45.7 44.7 52.3 65.4 65.9 67.1	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 Sank SO ₂ (μg/m³) 7.7 8.1 10.1 6.9 7.1 7.0 7.8 7.3 8.5	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8 NO2 (μg/m³) 13.7 13.8 15.9 14.6 13.9 14.8 14.5 14.0 14.7	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540 CO (mg/m³) 0.677 0.654 0.748 0.542 0.601 0.642 0.619 0.582 0.634
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Month Apr-20 May-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21	Particulars	21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³) 32.9 29.7 33.6 21.7 18.9 23.6 32.5 30.2 31.9 28.8	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³) 64.9 61.8 67.1 45.7 44.7 52.3 65.4 65.9 67.1 59.3	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 Sank SO ₂ (μg/m³) 7.7 8.1 10.1 6.9 7.1 7.0 7.8 7.3 8.5 7.2	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8 NO2 (μg/m³) 13.7 13.8 15.9 14.6 13.9 14.8 14.5 14.0 14.7 13.6	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540 CO (mg/m³) 0.677 0.654 0.748 0.542 0.601 0.642 0.619 0.582 0.634 0.566
Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Month Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20	Particulars	21.4 21.1 18.1 27.4 33.4 30.2 27.7 29.3 25.6 31.2 Near PM _{2.5} (µg/m³) 32.9 29.7 33.6 21.7 18.9 23.6 32.5 30.2 31.9	52.2 45.8 42.4 60.4 68.0 62.3 61.0 60.2 55.2 63.0 Fuel Storage T PM ₁₀ (μg/m³) 64.9 61.8 67.1 45.7 44.7 52.3 65.4 65.9 67.1	8.9 7.4 6.5 6.7 7.9 7.8 7.5 6.6 6.6 7.8 Sank SO ₂ (μg/m³) 7.7 8.1 10.1 6.9 7.1 7.0 7.8 7.3 8.5	15.4 12.7 12.1 15.0 14.9 14.3 14.6 14.3 11.9 13.8 NO2 (μg/m³) 13.7 13.8 15.9 14.6 13.9 14.8 14.5 14.0 14.7	0.529 0.402 0.461 0.546 0.535 0.603 0.589 0.508 0.520 0.540 CO (mg/m³) 0.677 0.654 0.748 0.542 0.601 0.642 0.619 0.582 0.634