

No. JSPL/ANGUL/EMD/21-22/89

Date: 25th Nov 2021

To,
Ministry of Environment, Forest & Climate Change
Eastern Regional Office
A/3, Chandershekharpur
Bhubaneswar – 7510233

Subject: Compliance to Environmental Clearance of M/s. Jindal Steel & Power Limited, Angul

Ref.: Environmental Clearance No. J – 11011/365/2006 – IA.II (I) dated 22nd February, 2007, amendment on 14th November, 2008, 10th February 2011, 8th February 2017, 26th June 2018, 22nd January 2019 & 19th January 2021

Dear Sir,

With reference to above, we are submitting herewith the half yearly compliance report in respect to 6 MTPA integrated Steel & Power Plant of M/s Jindal Steel & Power Ltd, Angul, Odisha, for the period of April 2021 – September 2021.

Thanking you,

Yours faithfully,

for Jindal Steel & Power Limited



Alok Sahu

AVP – EMD

Copy to:

- 1) State Pollution Control Board, Odisha
- 2) Central Pollution Control Board, Kolkata

Integrated Steel Plant at Angul of Jindal Steel & Power Limited
Compliance to Stipulations of Environmental Clearance
No. J – 11011/365/2006 – IA.II (I) dated 22.02.2007

Sl. No.	Stipulations	Compliance
1	Coal will be sourced from captive coal mine and environmental clearance is yet to be accorded by the Ministry. Total land requirement will be 2,150.385 including 232 ha forest land which is submitted to the State Forest Department, Orissa on 22 nd November 2006 for approval. The proposal also involves displacement of persons and outsees have to be rehabilitated. R & R Action Plan is prepared and submitted to the State Govt for Approval	Utkal B1 coal mine for which the Environment clearance was taken has been de-allocated as per the Supreme Court order. At present coal is being procured through E-auction from MCL coalfield at Talcher. Ministry of Environment & Forest has approved procurement of coal from coal mines of Talcher Coalfields by road and/or rail to the Coal washery of the project vide letter no. J11015/1015/2007-IA.II(M)pt dated 11.12.2017 towards amendment of the Environment Clearance of the 6.5 MTPA coal washery. The Coal Washery is located within the integrated Steel project and supplies washed coal to the Coal Gassification Plant and the middling coal and rejects coal for use in the CFBC captive power Plant plant. The new condition is <i>“Raw coal to be transported by the dedicated road in tarpaulin covered trucks from the nearby coal mines in Talcher Coalfields, and/or rail to the Coal Washery”</i> (copy attached as Annexure 1). Accordingly we have developed dedicated road for coal transportation from Talcher area mines to JSPL plant and traffic study of that road has been done submitted to the MoEF&CC. Total 4,817.04 Ac of land has been allocated to JSPL out of which so far the plant has been set up in about 2300 Ac of area. Forest Clearance has been received. Resettlement & Rehabilitation has been done as per the Orissa R & R Policy, 2006 under direct supervision of RPDAC (Rehabilitation & Peripheral Development Advisory Committee, Govt. of Orissa). Till now 262 families, 159 families (Basudevpur-78, Panpur-62, Kaliakata-18 & Badakerjang Jungle-1) have been resettled at Badamahitala R&R site, another 63 families of Basudevpur have been self-relocated at Pitabali R&R site and the balance 40 families (Basudevpur-7, Panpur-1 & Kaliakata-32) have been taken full R&R package for self-relocation on their own.
2	Bag filters, fume extraction system, cyclone, ventury scrubber, Electrostatic Precipitators	Followings air pollution control devises have

	(ESPs), water spraying facilities etc will be provided to control the fugitive gaseous emissions below 100 mg/Nm³. Total water requirement from River Brahmani/ Samal Barrage will be 14,700 M³/hr. The wastewater will be treated in ETP and will be 100% recycled and reused in the process, coal dust suppression and gardening. No wastewater will be released outside the plant premises. BF slag will be sold to cement manufacturers. Dust from BF & SMS sludge, ETP sludge of DRI plant; coal ash from power plant & gasifier etc. will be used for backfilling captive coal mines. Dust from lime dolomite plant will be reused in ladle coating and wastewater treatment. SMS slag and dust from ferro-alloy plant will be used for road making, Mill scales will be sold to steel plants. Hearth layer and APCD dust from pellet plant will be reused in Pellet plant. No char and accretions will be generated. Out of total solid waste generated, 46.8% will be reutilized and 53.3% will be disposed off in abandoned coal mines.	been installed: Power Plant (6x 135 MW): 6 no. of 8 field double pass ESP of 874085 m³/hr capacity has been provided. 3 no. of stacks of 220 m height each having 2 no. flue ducts has been provide. Bag filter in fly ash silo; DE system with bag filter in coal handling plant are in place. 16 no. of water sprinkler system has been installed in coal storage yard to control fugitive emission. Plate Mill (1.2 MTPA rolling Mill): Mixed gas fired reheating furnace of plate mill provided with 76.5 m height stack. At present mill scales are reused in blast furnace and sinter plant. Lime Dolomite Plant (2 x500 TPH): Covered conveyor belt has been provided for transportation of raw material and product. 95000 m³/hr capacity bag filter attached with 45 mtr height stack has been installed in raw material handling system. 43000 m³/hr capacity bag filter attached with 45 mtr height stack has been installed in product handling system. 2 no. of 83900 m³/hr capacity bag filter attached with 2 no. of 54 mtr height stack has been for lime kiln and dolo kiln. As lime production is dry process, there is no waste water generation from Lime Dolo Plant. Electric Arc Furnace -250 T (1.5 MTPA steel melting shop): Fume extraction system along with bag filter of 1801685 m³/hr attached with 70 mtr height stack has been provided to control emission from electric arc furnace. DRI (1.8 MTPA gas based sponge iron): Wet scrubber of 90747 m³/hr, 95557 m³/hr and 110290 m³/hr attached with 3 no. of 30 mtr height stack have been provided for Bottom Seal Gas dust collection system, Hot Transport dust collection system and Product Cooler dust collection system respectively. 2 no. of bag filter of 110500 m³/hr and 60000 m³/hr attached with 2 no. of 41 mtr height stack have been provided for product handling dust collection system. CGP (2.25 Lakh Nm³/hr): 45500 m³/hr
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		capacity bag filter with 45 mtr height stack has been provided in gasifier unit and incinerator with 50 mtr height stack in sulphur recovery unit has been installed. Coke Oven (2 MTPA): 2 no. of bag filter each having capacity of 80000 m³/hr with 2 no. of 30 mtr height stack has been provided to control emission from coal charging system of Coke Oven battery 1 & 2 and 3 & 4. 2 no. of bag filter each having capacity of 260000 m³/hr with 2 no. of 30 mtr height stack has been provided to coke pushing system of Coke Oven battery 1 & 2 and 3 & 4. 2 no. of 145 mtr height stack has been provided for 4 no. of coke oven battery. Each stack having capacity to handle 786000 m³/hr of flue gas. Blast Furnace (4554 m³, 4.25 MTPA): 2 no. of bag filter each having capacity of 912600 m³/hr and 2 no. of 50 mtr height stack has been provided for cast house. 1018800 m³/hr capacity bag filter with 50 mtr height stack has been provided in stock house. Bag filter of 136884 m³/hr capacity attached with 82 mtr height stack has been provided for pulverized coal injection system of blast furnace. Wet scrubber of 476000 m³/hr with 90.6 mtr height stack has been provided for blast furnace stove. Sinter Plant (490.5 sq m, 5 MTPA) : 2 no. of ESP each having capacity of 1450000 m³/hr attached with 120 mtr height stack has been provided for sinter strand. For plant dedusting system 936000 m³/hr capacity bag filter with 80 mtr height stack has been provided. 2 no. of bag filter each having capacity of 440000 m³/hr with 2 no. of 80 mtr height stack attached with flux handling system and coke handling system. BOF (250 T Furnace, 3 MTPA): ESP of 476554 m³/hr capacity attached with 76 mtr height
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		stack has been provided for control of emission from BOF converter. Bag filters of 2000000 m³/hr attached with 73 mtr height stack has been provided for plant dedusting system. RMHS: 26 no. of water sprinkler in each raw material stock yard; 156 no. of nozzle for wagon trippler, 884 no. of nozzle for track hopper and dry fog system has been provided in all junction houses and transfer points. The water resource department has further de-allocated the water requirement of JSPL from 95.15 Cusec to 50 Cusec water vide their letter dated 02.11.2020. Power Plant and Process Boiler waste water: 2 X 400 m³ Neutralization Pit, 2 X 4000 m³ Guard Pond, 2 X 2500 m³/hr Clarifier has been provided to treat waste water generating from Power Plant and Process Boiler. Treated water is used in ash slurry making, road dust suppression and horticulture irrigation. No wastewater is being released outside. Plate Mill waste water: DCW ETP: The waste water that comes from Direct Cooling (by means of pumps) of the roller tables, hot leveler and descaler system, mill and edger rolls, fume suppression and sweep sprays flows by gravity to scale pit. Oil & grease also get separated by two nos. of oil skimmer installed in scale pit. Scales from scale pit are being collected in scale storage bins for further use in Sinter Plant. Waste oil is stored in the drums for selling off to registered recyclers. From Scale pit the water to pump to 5 nos. Secondary Settling Tanks of size 45m (L) x 5.9m (W) x 3.2m (D) for removal of fine scales. Each of these tanks is also installed with oil skimmer for further removal of oil and grease from waste water. From secondary settling tanks water pumped to Filtration plant consisting of total 19 nos. of High Rate Pressure Filters (18W+1S) of capacity 260m³/hr each. For reducing the
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		blow down quantity two nos. De Mineralized pressure filters of flow rate 70m³/hr each are installed. After passing through filtration unit water goes to cooling tower. The cooled water is recirculated in the plant itself. The back wash water from filtration unit is treated in a clarifier and is circulated to secondary settling tank. Clarifier of capacity 125m³/hr for treatment of backwash water of High Rate Pressure Filters has been provided. MULPIC ETP: The water is supplied from Mulpic Pump House to Elevated water tank. From elevated water tank the water flows by gravity to Mulpic Zone A,B,C & D and from Mulpic Zone A,B,C & D to Hot water sump. From the Hot water sump the 7000 m³/hr of Hot water goes to Filtration plant (28W + 2S; 250 m³/hr/filter) and from filtration plant to cooling tower. The backwash water from filtration plant goes to waste water sump from where it is being pumped to Mulpic thickener (21 m dia; 1 No.) @ 275 m³/hr. For flocculation purpose polyelectrolyte is added at flash mixer @0.4 m³/hr. At flash mixer the filtrate received from the filter press also mixed along with the incoming backwash water to thickener. For proper settling and thickening of the sludge, thickener mechanism is provided which is running continuously. The high density flocks then settles at the bottom of the thickener. Clear overflow from the thickener then passed to oil separator for separation of oil particles. The settled sludge in thickener is drained and sludge is taken in sludge sump. Then sludge is pumped to filter press. Treated water is re-circulated to Mulpic cooling system. DRI waste water: Water used for direct cooling and top gas scrubbing is being sent to clarifier (capacity 4600 m³/hr) where particles are removed by clarifoculation method. Cleaned water after passing though cooling tower sent to process. Cooling tower blow down water is used to RMHS for dust suppression. CGP waste water: 400 m³/hr capacity bio ETP
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		and 350 m³/hr TETP have been provided to treat stripped gas ammonia liquor and oily waste water. Coke Oven waste water: Waste water generated from cooling tower blowdown is being used in coke quenching. Effluent from coke oven gas cleaning is being taken to pretreatment plant of coke oven to remove O&G and tar and then transferred the Bio ETP of Coal Gasification Plant for further treatment. To treat Coke Oven waste water in CGP ETP necessary amendment in EC condition has been received vide letter no. J – 11011/365/2006 – IA.II (I) dated 22/01/2019. Blast Furnace waste water: Waste water generated from cooling tower blowdown is being used in slag quenching. Between April – Sept 2021, 636976 ton of Blast Furnace slag has been generated. Out of which 531548 ton sold to cement manufacturer. 39208 ton dust from Blast Furnace and 38741 ton DRI ETP sludge has been generated between April – Sept 2021 which was completely reused in Sinter Plant. Coal ash from power plant and process boiler is being used in 1.17 MTPA fly ash brick making plant, 0.25 MTPA fly ash based light weight aggregate making plant, road making, low lying area development and other civil works. Ash from Coal Gasification Plant is being used in road making inside plant premises. 110996 ton dust was generated from lime dolomite plant between April – Sept 2021 which was reused Sinter Plant. Between April – August 2021, 95% EAF & 100% BOF slag was used in road making inside plant and other civil work as replacement of stone aggregate. Dust from EAF & BOF was reused in Sinter Plant. 15703 ton of Mill scales were generated from
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		both Plate Mill & Bar Mill which was reused in Sinter Plant. Construction of Pellet Plant not started yet. All air pollution control & solid waste management requirements will be taken care in other plants also on commissioning.
3	Public hearing meeting was held on 21 st March, 2006. 'Consent for Establishment' has been accorded by the Orissa State Pollution Control Board vide letter no. 22090/Ind-II-NOC4103 dated 7 th September, 2006 Total cost of the project is Rs 15.000.00 Crores.	Consent to Establish has been granted by the State Pollution Control Board, Odisha.
4	The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14 th September, 2006 subject to strict compliance of the following specific and general conditions	Noted.
	SPECIFIC CONDITIONS	
i)	The gaseous emissions from various process units shall conform to the load/ mass based standards notified by this Ministry on 19 th May, 1993 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards. On line continuous stack emission monitoring for all the major stacks will be carried out and reports submitted to the OSPCB & CPCB. The emission levels from all the sources shall be kept below 100 mg/Nm ³ . Interlocking facility shall be provided so that process can automatically stopped in case emission level exceeds the limit.	On line continuous stack emission monitoring system for monitoring particulate matter, SO_x and NO_x has been installed in Power Plant, Process Boiler, Lime Dolomite Plant, SMS, DRI, Plate Mill, Bar Rolling Mill Coke Oven Plant, Blast Furnace, Sinter Plant & BOF and monthly monitoring is being done through NABL & MoEF&CC approved lab. Due to COVID 19 restriction 3rd party manual monitoring was not done between April – June'21. Online monitoring report of April – Sept'21 and manual monitoring report of Jul'21 – Sept'21 attached as Annexure – 2. Real Time Data Acquisition System (RTDAS) has been installed in all online stack monitoring system and data transferred to SPCB, Odisha and CPCB, Delhi. The particulate emission is maintained below 50 mg/Nm³ and monthly monitoring report has been submitted to the SPCB. Electronic display board has been installed at plant main gate to display real time emission and AAQ data. Online camera to observe the stack emission also has been installed as per the direction of the State Pollution Control Board. Air pollution control systems are designed to achieve prescribed norms in other units. Interlocking facility for all units of the Captive Power Plant has been implemented. If the emission level from any of the unit exceeds the set standard then the unit will

		automatically stop. Similarly, in the steel plant, if the emission from the SMS after passing through the bag filter exceeds the set standard then the arc furnace will stop automatically. In all other units such as the Plate mill, gas based DRI and LDP, coal is not used as fuel. In the coal gasification, flue gas is cleaned before being sent to the gas based DRI. Thus emission generated is substantially reduced. Further the CPCB has issued OCEMS Protocol for effective compliance by the industry to the prescribed standards. As per the issued protocol, auto SMS/ email alerts will be generated for corrective measures/ operation shutdown if the emissions are exceeded beyond the norms for a certain period.
ii)	Continuous online ambient air quality monitoring stations shall be setup at three locations around the project site and reports submitted to the OSPCB	4 Nos. of continuous air quality monitoring stations has been installed in January 2013 to monitor PM10, PM2.5, SO₂, NO_x, NH₃, O₃, CO and BTX (Annexure – 3). Real Time Data Acquisition System (RTDAS) has been installed in online ambient air quality monitoring stations and data transferred to SPCB, Odisha and CPCB, Delhi.
lii)	In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fume and dust extraction system with bag filters shall be provided in steel melting shop, Electric Arc Furnace and Ladle Refining Furnace. Coke oven (non-recovery type) shall be operated at negative pressure with no fugitive emissions. Bag filters shall be provided to Pellet plant, DRI plant, Lime kiln, Power plant, SMS, SAF, Cast house, raw material stock house of BF, raw material mixing section of SMS and material transfer points of lime dolomite plant. ESP shall be provided to DRI kilns and lime dolomite plant. Gas cleaning plant shall be provided to BF. Cyclone followed by ventury scrubber shall be provided to the BF. Further, specific measures like water sprinkling shall be carried out at the coal yard, wagon tippler and truck tippler etc. Fugitive emissions shall be controlled, regularly monitored and records maintained.	To control fugitive emissions bag filter, dust extraction system and water sprinkler system have been installed in ash silo and coal handling plant respectively. Fume extraction system with bag filters has been provided in steel melting shop. Recovery type coke oven approved in revised EC dated 14th November, 2008. DE system with bag filters have been installed in ash silo of Power Plant & Process Boilers, coal gasifier, lime kiln, dolomite kiln, raw material handling system and product handling system of Lime Dolomite Plant, cast house & stock house of BF. Wet scrubbers have been provided in DRI. Gas cleaning plant, cyclone followed by ventury scrubber has been provided in BF stoves. DE system with bag filter, plain water dust suppression system and dry fog dust suppression system have been installed in RMHS screening and crushing building, raw

		material yards, wagon tippler and conveyor lines. Fugitive emissions are controlled, regularly monitored and records maintained (Annexure – 4).
iv)	The power plant Installed shall be based on conventional pulverized fuel technology. Coal shall be sourced from captive coal mines and prior environmental clearance from the Ministry shall be obtained. ESP shall be installed to keep SPM levels below 100 mg/Nm³. Wastewater generated from cooling tower blow down shall be used for ash handling and disposal. Fly ash shall be backfilled in captive coal mines.	Power Plant is based on CFBC technology which is design to use middling and reject coal from coal washery. Utkal B1 coal mine has been de-allocated as per the Supreme Court order. At present coal is being procured through E-auction from MCL coalfield at Talcher. Coal is being transported by both rail and road from MCL coal mines at Talcher. 6 no. of 8 field double pass ESP of each having capacity of 874085 m³/hr for Power Plant and 3 no. of 6 field single pass ESP of each having capacity of 386640 m³/hr capacity for Process Boiler has been provided to control particulate emission below 50mg/Nm³. Cooling tower blowdown from Power Plant and Process Boiler is being used in ash handling system. At present fly ash is being used in brick making, construction of ash dyke, civil works and road making inside plant premises. A high capacity fly ash brick making plant (1.17 MTPA) has been commissioned. 0.25 MTPA fly ash based light weight aggregate plant has been commissioned in March'15. Ash utilization report of April – Sept'21 are given in Annexure – 5.
v)	Total requirement of the water River Brahmani / Samal Barrage shall not exceed 14,700 M³/hr. 'Permission' has been accorded for the drawl of 7000 m³/hr water for Phase I by the Department of Water Resources. Govt. of Orissa vide letter dated 11th Dec 2008 and 'Permission' for phase-II shall be obtained. The wastewater from scrubbers in DR Plant and Blast furnace shall be treated in ETP and reused for dust scrubbing. However, wastewater from SMS and Oxygen plant shall be used for slag granulation; from Billet and Slab caster, Soft water plant, DM water plant etc. in pellet making and Cooling water for re-circulation. The wastewater from power plant shall be used for ash slicing and coal dust	Permission for withdrawal of 9700 m³/hr has been obtained in 2014. After rephasement 5097 m³/hr (50 cusec) water withdrawal permission received from Dept. of Water Resource, Govt. of Odisha for the period of 03.11.2020 to 30.09.2023. Waste water from DRI Plant is being treated in ETP and reused in process and RMHS for dust suppression. Waste water from Blast Furnace is being reused in slag quenching. Waste water from SMS is being treated in ETP and reused in slag granulation and slag quenching. Cooling tower blowdown from Oxygen Plant is being used in horticulture irrigation. Wastewater from Power Plant and

	suppression. All the treated wastewater shall be recycled & reused either in the Process or for green belt development. No effluent shall be discharged outside the premises and 'Zero' discharge shall be adopted. Domestic wastes shall be treated In Sewage Treatment Plant (STP)	Process Boiler is being used for ash disposal, RMHS coal dust suppression and horticulture irrigation. Waste water from CGP is being reused in cooling tower make up, RMHS dust suppression, ash sluicing, SMS slag quenching, coke quenching and coal washery make up water. All the treated waste water is being recycled either in process or in green belt development. No effluent is discharge outside plant premises and 'Zero' discharge is maintained for the whole plant. Offices are provided with septic tank and soak pits.
vi)	Groundwater monitoring around the solid waste disposal site / secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhubaneshwar, CPCB and OPCB.	For ground water monitoring borewell has been constructed around the ash pond and water has been analyzed through NABL approved lab. Report attached as Annexure-6.
vii)	Dust from pellet plant in Pellet plant; from Lime dolomite plant in ladle coating and wastewater treatment; from BF & SMS, sludge from GCP of BF, ETP sludge of DRI plant, coal ash from power plant, coal ash from gasifier, sludge from ETP etc for backfilling captive coal mines. SMS slag and slag dust from ferro-alloy plant shall be used for road making. BF slag shall be sold to cement manufacturers. Mill scales of casting machine and rolling mill shall be sold to steel plants. Fly ash and granulated slag shall be used in cement plants. No char and accretions will be generated. Used oil shall be sold to recyclers and preprocessors.	Solid waste are reused / recycled as per the stipulation. Dust from lime dolomite plant is being used briquette making plant and Sinter Plant. Sludge generated GCP of BF and DRI ETP is being reused in Sinter Plant. Coal ash from gasifier is being used in road making. ETP sludge from CGP ETP disposed to common hazardous waste disposal site at Jajpur developed by M/s Ramky. EAF slag is taken to slag granulation dump yard through mobile slag pots. After dumping of 5-6 hot slag pots in a pit the slag is cooled by water spraying and broken into small pieces which are then transferred to slag granulation dump yard where the slag is crushed into different sizes and metallic portion is separated by magnetic separator. The processed slag is transported through dumpers to various areas inside plant for road making, back filling, area leveling. A small portion of fine slag is also sent to Sinter Plant and Batching Plant for reuse as raw material due to having good percentage of CaO. LRF slag and BOF slag is dumped into slag pits of BOF slag yard by EOT crane. After cooling

		with water jet the slag is broken into small pieces and then broken slag is transferred to slag crusher, where the slag is crushed into different sizes and segregated. The processed slag is transported through dumpers to various areas inside plant for road making, back filling and area leveling. Blast Furnace slag is taken to slag granulation plant where high pressure water sprayed over slag to form granulated slag. The granulated slag stored in yard and sold to cement plants. Small quantity of ungranulated slag (boulder slag) generated from the process is being reused inside plant for road making and land development. Mill scales are being reused Sinter Plant. Fly ash & Bottom ash pneumatically conveyed to ash silo from intermediate silo and ESP. From ash silo dry fly ash pneumatically conveyed to brick plant and light weight aggregate plant. Ash is partially used for reclaiming low laying areas for which SPCB permission has been granted. Provision has been made for ash disposed in ash pond through high concentration slurry disposal system maintaining ash and water ratio at 60:40. Ash pond has been developed over an area of 162 Ac out of the total ear marked 280 Ac of area. No char and accretions are generated. Management system for collection and storage of oily wastes has been implemented. Used oil has been sold to the authorized recyclers and processors.
viii)	Possibilities shall be explored regarding use of coal ash by the cement manufacturing units. Bottom ash shall be disposed off in a suitably designed landfill as per CPCB guidelines to prevent leaching to the sub-soil and underground aquifer.	The bottom ash is discharged in size range of 750 micron to 2 mm and is collected in dry form. In the CFBC boiler about 20 % of the total ash comes out as bottom ash. The bottom ash from the boiler bottom and fly ash from the Electrostatic Precipitator is pneumatically conveyed to silos for storage. Both the fly ash and bottom ash are used combinedly in road making, land development and brick making. Ash generation & utilization between April – Sept'21 attached as Annexure 5 .
ix)	The company shall develop rain water harvesting structure harvest the rain water for utilization in the lean season besides	9 no. of rain water harvesting and ground water recharging structures have been constructed. Apart from that 3 nos. of rain

	recharging the ground water table.	water collecting structure of capacity 3600 m ³ each has been constructed in the plant and project area and rain water from these structures is being taken to a water storage reservoir through pump. The vast unlined base of the 75 ha water reservoir acts as a very good natural groundwater recharge in the plant premises.
x)	Green belt shall be developed in at least 33 % area within and around the plant premises as per the CPCB guidelines in consultation with DFO	About 4.93 lakh trees have been planted in and around the plant premises so far. JSPL has taken a target of plantation of 1.5 Lakh saplings in FY 2021-22. Green belt is being developed in 33% area, in and around plant area in phases. Apart from the above under CSR activities about 1.5 Lakh trees have been plant in the surrounding.
xi)	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Pre-employment health survey and periodic health check up of all employees is being done as per Factories Act and records are being maintained (Annexure 7).
xii)	Recommendations made in the CREP guidelines issued for the Steel plants shall be implemented.	CREP guideline for Steel plant has been implemented. Details are given in Annexure – 8 .
xiii)	No commencement or operation of the cement Plant shall be carried out without obtaining prior environmental clearance for the captive coal mine from the Ministry.	Utkal B1 coal mine has been de-allocated as per the Supreme Court order for which EC was granted. Now coal is sourced from MCL Talcher mines which have valid ECs.
xiv)	Comments and recommendations of the Chief Wildlife Warden (CWLW), Govt. of Orissa regarding impact of the proposed plant on the nearby and protected forests shall be obtained and suggestions if any shall be implemented in a time bound manner.	A wildlife management plan for forest areas within 10 km from the plant boundary has been prepared for the protection of forest & wildlife with a budget of Rs. 3.78 Cr. The same has been approved by CWLW, Orissa. JSPL has deposited the amount on 4 th August 2010 to the Forest Dept. for implementation of the project.
xv)	All the affected persons shall be suitably compensated and rehabilitated as per the norms and guidelines issued by the State Government in collaboration with State Government,	Resettlement and Rehabilitation has been done for the displaced and affected families. JSPL has developed rehabilitation site at village Baramahitala 2-3 km away from the project site for displaced people of village Kaliakata, Basudevapur and Panpur with all the common facilities like school, market complex, primary health center, electricity, running water, drainage system etc. as per Orissa R&R Policy, 2006 under direct supervision of RPDAC (Rehabilitation & Peripheral Development Advisory Committee, Govt. of Orissa).
xvi)	No construction activity at the project site shall be initiated till the approval for the 168,232 ha forest land is obtained under the Forest (Conservation) Act, 1980 & subsequent amendments from the State/Central Government.	Forest Clearance has been received.

	GENERAL CONDITIONS	
i)	The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OSPCB) and the State Government.	Noted
ii)	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.	Noted
iii)	At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated In consultation with the OSPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the OPCB/CPCB once In six months.	4 Nos. of continuous air quality monitoring stations have been installed in January 2013 to monitor PM₁₀, PM_{2.5}, SO₂, NO_x, NH₃, O₃, CO and BTX. Real Time Data Acquisition System (RTDAS) has been installed in online ambient air quality monitoring stations and data transferred to SPCB, Odisha and CPCB, Delhi. On line continuous stack emission monitoring system for monitoring particulate matter, SO_x and NO_x has been installed in all 6 units of Power Plant, 3 units of Process Boiler, Plate Mill, Bar Rolling Mill, SMS, Lime & Dolomite Plant, DRI, CGP, Coke Oven Plant, Blast Furnace & Sinter Plant and regular monitoring is being done. Real Time Data Acquisition System (RTDAS) has been installed in all online stack monitoring system and data transferred to SPCB, Odisha and CPCB, Delhi. The particulate emission is maintained below 50 mg/Nm³ and monthly monitoring report has been submitted to the SPCB, Odisha.
iv)	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Wastewater from Power Plant and Process Boiler is being used for ash disposal, RMHS coal dust suppression, slag quenching and horticulture irrigation. Analysis report of Power Plant treated water is given in Annexure – 9. Cooling tower blowdown from Oxygen Plant is being used in horticulture irrigation. Waste water from DRI Plant is being treated in ETP and reused in process and RMHS for dust suppression. Waste water from CGP is being reused in cooling tower make up, RMHS dust suppression, ash sluicing, BOF slag quenching and coal fire fighting. Analysis report of CGP treated water is given in Annexure – 10. Waste water from Coke Oven Plant is being treated in Bio ETP and then taken to TETP. Treated water from TETP is used in cooling tower make up, slag quenching and coke quenching. Waste water from Blast Furnace is being reused in slag quenching and coke quenching.

		All the treated waste water is being recycled either in process or in green belt development. No effluent is discharged outside plant premises.
v)	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime.) and 70 dBA (nighttime).	The overall noise level in and around the plant area will be kept well within the standards (85 dBA). Acoustic enclosures are provided in all high noise generating equipments. The ambient noise levels conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime.) and 70 dBA (nighttime). Details monitoring report is given in Annexure – 11.
vi)	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	All the environmental protection measures and safeguards recommended in the EIA / EMP report are under implementation. A separate Environment Management Department with full fledged environmental laboratory for regular monitoring of environmental quality parameters has been set up. The Organogram of Environment Management team and details of the list of the instruments in the laboratory are attached is attached in Annexure – 12 & 13. Till September 2021, JSPL has spent Rs. 100.96 Cr on CSR activities in the surrounding villages of the project in the following areas: • Health, hygiene & sanitation • Imparting quality education • Generation sustainable livelihood options • Sports, youth & culture • Community infrastructure development • Women empowerment • Natural resource management • Stakeholders engagement and other need based critical supports A brief annual report on the CSR activities at JSPL, Angul is enclosed. Annexure – 14.
vii)	As mentioned in the EIA/EMP, Rs. 2,000.00 Crores and Rs 100.00 Crores earmarked towards the capital cost and recurring cost/annum for environmental pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government, The funds so provided shall not be diverted for any other purpose	Noted
viii)	The Regional Office of this Ministry at Bhubaneswar / CPCB/ OSPCB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	A six monthly report is submitted with all monitoring results for compliance for operation of the plant.

ix)	The project proponent shall inform that the project has been shall Inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the OSPCB/Committee and may also be seen in Website of the Ministry of Environment and Forests at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.	Complied.
x)	Project authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Date of financial closure was 06/3/09 and date of commencement of land development work was 02/4/10.
5.0	The Ministry may revoke or suspend the clearance; If Implementation of any of the above conditions is not satisfactory.	Noted
6.0	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company In a time bound manner will Implement these conditions.	Noted
7.0	The above conditions will be enforced, Inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974. the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules	Noted

Integrated Steel Plant at Angul of Jindal Steel & Power Limited
Compliance to Amendment in Stipulations of Environmental Clearance
No. J – 11011/365/2006 – IA.II (I)

Date of Amendment: 14.11.2008

Sl. No.	Stipulations	Compliance
1.	Continuous stack monitoring facilities for all the major stacks and adequate air pollution control systems shall be provided to control air emission within 50 mg /Nm ³ and reports for ambient air, stack emission and fugitive emissions submitted to the Ministry's Regional Office at Bhubaneswar, OSPCB & CPCB regularly.	On line continuous stack emission monitoring system for monitoring particulate matter, SO _x and NO _x have been installed in all 6 units of Power Plant, 3 units of Process Boiler, Plate Mill, Bar Rolling Mill, SMS, LDP, DRI, CGP, Coke Oven Plant, Blast Furnace, Sinter Plant and regular monitoring is being done. Real Time Data Acquisition System (RTDAS) has been installed in all online stack monitoring system and data transferred to SPCB, Odisha and CPCB, Delhi. The particulate emission is maintained below 50 mg/Nm ³ and monthly monitoring report has been submitted to the SPCB, Odisha.
2.	The emission standards issued by the Ministry in May, 2008 for the sponge plants shall be followed.	Emission from BF and the Gas based DRI is within the standard (Annexure – 2).
3.	Total requirement of the River Brahmani/ Samal Barrage shall not exceed 14,700 m ³ /hr and prior 'Permission' should be obtained from the concerned department and a copy submitted to the Ministry's Regional Office at Bhubaneswar within 3 months of issue of this letter.	Permission for withdrawal of 9700 m ³ /hr has been obtained in 2014. After rephasement 5097 m ³ /hr (50 cusec) water withdrawal permission received from Dept. of Water Resource, Govt. of Odisha for the period of 03.11.2020 to 30.09.2023.
4.	Proper and full utilization of coke oven gases in power plant using heat recovery steam generator (WHRB) shall be ensured and no flue gas shall be discharged into the air. Tar, NH ₃ should be cleaned in the process and H ₂ S recovery from the coke oven shall be ensured. Coal tar, elemental sulphur and crude benzol shall be recovered from coke oven gas.	Coke oven gas is partially used for battery heating. Remaining gas is supplied to Power Plant boilers and other units of steel plant for use apart from use in the gas based steam boilers. No coke oven gas is directly discharged to air.
5.	Wet quenching shall be adopted within one year of installation of coke oven and all the treated wastewater shall be used for wet quenching.	Wet quenching system has been provided in coke oven plant. At present JSPL is in the process of installing the CDQ system. Amendment in EC has been received vide letter no. J-11011/365/2006-IA.II(I) dated 19.01.2021 for time frame of installation of CDQ system by 31.12.2021.
6.	The prescribed emission standards for coke oven plants as notified vide notification no. GSR 46 (E) dated 3 rd February, 2006 shall be complied with.	Emission standard prescribed in GSR 277 (E) dtd. 31 st March 2012 has been implemented in the coke oven plant.

7.	Biochemical treatment of phenolic wastewater shall be treated in BOD plant and used for quenching of hot coke to control emissions, dust suppression and green belt development. Cyanides as CN shall be controlled within 0.2 mg/l and ammonical nitrogen within 50 mg/l as per standards notified under the E (P) Act. Effluent analysis reports shall be submitted to the Ministry's Regional Office at Bhubaneswar, OSPCB & CPCB regularly.	Biochemical treatment is given to combined phenolic waste water from Coke Oven and Coal Gasification Plant. Further treated effluent is processed in ultra filtration and RO based TETP and recovered water is used as make up to service water of the plant and SMS slag quenching. Before it is sent to the Bio ETP of Coal gasification plant, oil and grease removal and equalization is done at the Coke oven. Coke oven cooling tower blowdown water is used for wet quenching of coke. Treated water meet the Cyanide and ammonical nitrogen standard and analysis report from NABL approved lab has been attached (Annexure – 10). Effluent analysis reports have been submitted to the SPCB, CPCB and MoEF, Bhubaneswar regularly.
8.	Coal and coke fines shall be recycled and reused in the process.	Coal and coke fines are being reused in Sinter Plant and Blast Furnace.
9.	All the recommendations made in the Charter of Corporate Responsibility for Environment Protection (CREP) for the coke oven plants shall be implemented.	All the recommendations made in the Charter of Corporate Responsibility for Environment Protection (CREP) for the coke oven plant has been implemented.
10.	'Consent to Establishment' for the revised integrated steel plant (6 MTPA) & captive power plant (1156 MW) shall be obtained from the Orissa State Pollution Control Board and a copy submitted to the Ministry's Regional Office at Bhubaneswar.	Received the Consent to Establish from the SPCB, Odisha has been received for following plants: 6 X 135 MW Captive Power Plant, 3 X 180 TPH Process Steam Boiler, 6 MTPA Rolling Mill, 3 MTPA SMS (EAF), 3 MTPA SMS (BOF), 3000 TPD Lime Dolomite Plant, 7200 TPD Oxygen Plant, 4 MTPA DRI Plant, 4000 x 10⁶ Nm³/year Coal Gasification Plant, 2 MTPA Coke Oven & Byproduct Plant, 4.25 MTPA Blast Furnace, 5 MTPA Sinter Plant, 5 MTPA Pellet Plant, 0.08 MTPA Ferroalloy Plant, 0.48 MTPA Beam Welding Plant, 62 MW Pressure recovery turbine and 280 Ac ash dyke. So far the Consent to Operate of following plants have been obtained: 6 X 135 MW Captive Power Plant, 3 X 180 TPH Process Steam Boiler, 1.2 MTPA Plate Rolling Mill, 1.4 MTPA Bar Rolling Mill, 1.5 MTPA SMS (EAF), 3 MTPA SMS (BOF), 2 X 500 TPD Lime Dolomite Plant, 2 X 1200 TPD Oxygen Plant, 1.8 MTPA DRI Plant, 2,25,000 Nm³/hr Coal Gasification Plant, 1.4 MTPA Bar Rolling Mill, 2 MTPA Coke Oven & Byproduct Plant, 3.2 MTPA Blast Furnace, 4 MTPA Sinter Plant and 162 Ac ash dyke lagoon no. 1 have been

		commissioned so far.
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Integrated Steel Plant at Angul of Jindal Steel & Power Limited
Compliance of conditions mentioned in Letter No. J – 11011/365/2006 – IA.II (I)
dated 10th Feb 2011

Sl. No.	Conditions	Compliance
1	M/s JSPL shall install the coal gasification technology using non-coking coal for the coke oven plant. The company shall adopt the dry quenching of coke to conserve water and mitigate pollution.	JSPL has constructed a 2.25 lakh Nm³/hr capacity coal gasification plant consisting of 7 no of gasifiers based on non coking coal. The synthetic gas produced in the coal gasification plant is being used in the vertical shaft DRI unit for production of DRI. JSPL is in the process of installing the CDQ system. Use of wet quenching system in Coke Oven has been permitted till 31st Dec 2021 vide EC amendment letter no. J – 11011/365/2006 – IA.II (I) dated 19th January 2021.
2	The fly ash generated from various activities shall be used in the cement manufacturing and in back filling of mined out area after ascertaining its suitability through a scientific study. The company shall not use the fly ash in filling of low laying area as proposed in the information submitted.	At present fly ash is being used in brick making, construction of ash dyke, civil works and road making inside plant premises. A high capacity fly ash brick making plant (1.17 MTPA) has been commissioned. 0.25 MTPA fly ash based light weight aggregate plant has been commissioned in March'15.
3	While also implementing CSR related programs during the construction phase, the company shall earmark 2% of the net profit as CSR budget towards corporate social responsibility. Item-wise details of expenditure proposed on specific need based program identified towards this end with time bound execution schedules shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar.	Till Sept 2021, JSPL has spent Rs. 100.96 Cr on CSR activities during the construction activities through no net profit has been done during this period. Following CSR projects have been undertaken in surrounding villages: • Community health care • Education & skill building & employability • Rural development • Sustainable livelihood activities • Natural resource management • Sports, arts & culture • Calamity management & social welfare A brief annual report on the CSR activities and expenditure at JSPL, Angul is enclosed (Annexure – 14).

4	The company shall undertake continuous monitoring of ambient air quality and stack emission in respect of PM10, SO2, NOx and mercury. The monitored data shall be displayed on the company's website as well as important public places.	4 Nos. of continuous ambient air quality monitoring stations have been installed to monitor PM10, PM2.5, SO₂, NO_x, NH₃, O₃, CO and BTX. On line continuous stack emission monitoring system for monitoring particulate matter, SO_x and NO_x has been installed in Power Plant, Process Boiler, Plate Mill, Lime Dolomite Plant, SMS, DRI, Bar Rolling Mill, Coke Oven Plant, Blast Furnace, Sinter Plant and regular monitoring is being done. Mercury in Power Plant flue gas has been analyzed on monthly basis through NABL approved lab. Due to COVID 19 related restriction we were unable to check Mercury in Power Plant flue gas between April to June'21. Report copy of July – Sept'21 enclosed as Annexure – 15. Order has been placed to procure online Mercury analyzer. Real Time Data Acquisition System (RTDAS) has been installed in online ambient air quality monitoring stations and all online emission monitoring systems. This data is transferred to SPCB, Odisha and CPCB, Delhi. The monitored data also displayed on company's website and at online electronic display board located at Plant Main Gate.
5	The water conservation measures shall be adopted in the steel plant as well as the captive power plant by increasing the COC of 5.2. The drawl of water from the Derjang dam shall be avoided and rain water harvesting measures shall be undertake to recharge the ground water as well as use of rain water harvested by constructing a water reservoir.	Captive power plant maintains COC at more than 5. No water has been drawn from Derjang dam. 9 no. of rain water harvesting and ground water recharging structures have been constructed. Apart from that 3 nos. of rain water collecting structure of has been constructed in the plant and project area and rain water from these structures taken to a water storage reservoir through pump. The vast unlined base of the 75 ha water reservoir acts as a very good natural groundwater recharge in the plant premises.
6	The energy conservation measures for integrated steel plant should be introduced with available best international practices and with details may be submitted to the Ministry in this regard.	JSPL has adopted best available technologies for steel making which is energy efficient. Following energy conservations measures have been adopted in the plant. 1. Use of Coal gasification technology along with the gas based vertical shaft DRI furnace for energy efficient

		and char free production of DRI. 2. Use of washery for washing the locally available coal for use in coal gasification plant and use of washery rejects and middling for power generation in CFBC boilers. 3. Generation of about 61 MW power from pressure recovery turbines from process gas and process steam. 4. Use of energy efficient Walking beam furnaces in plate mill. 5. Use of syn gas from CGP in DRI, and Coke Oven gas & Blast Furnace gas in LDP, Plate Mill & Bar Mill instead of using petroleum products such as HSD, fuel oil etc.
7	The company shall comply with all the conditions stipulated vide letter of even no. dated 22 nd Feb 2007 and subsequently, in a letter dated 14 th Nov 2008.	JSPL complies with all the conditions stipulated vide letter dated 22 nd Feb 2007 and 14 th Nov 2008.
8	In case of any change in the scope of the project, the company shall inform the Ministry for necessary action.	Noted.
9	In case of non compliance of the above directions, the Ministry will be constrained to take necessary actions under various provisions of Environment (Protection) Act, 1986.	Noted.

Integrated Steel Plant at Angul of Jindal Steel & Power Limited
Compliance of conditions mentioned in Letter No. J – 11011/365/2006 – IA.II (I)
dated 8th Feb 2017

Sl. No.	Conditions	Compliance
5 (i)	Use of wet quenching system in Coke Oven batteries shall be permitted upto 31 st December 2018.	Use of wet quenching system in Coke Oven has been permitted till 31 st Dec 2021 by which date the Coke Dry quenching plan will be commissioned (EC amendment letter no. J – 11011/365/2006 – IA.II (I) dated 19 th January 2021.)
(ii)	Wet quenching to be kept as standby for emergency operation and also to be used during annual shutdown for the CDQ boiler.	Wet quenching will be kept as standby for emergency operation and also to be used during annual shutdown for the CDQ boiler.
(iii)	Bifurcation of 6 MTPA Steel Melting Shop (SMS) to Electric Arc Furnace (EAF) route (3 MTPA) and Basic Oxygen Furnace (BOF) route (3 MTPA) has been permitted.	A 250 tons capacity Electrical arc furnace (EAF) and 250 tons capacity BOF have been commissioned which are capable of producing 3 MTPA liquid steel each.

Integrated Steel Plant at Angul of Jindal Steel & Power Limited
Compliance of conditions mentioned in Letter No. J – 11011/365/2006 – IA.II (I)
dated 26th June 2018

Sl. No.	Conditions	Compliance
15. (i)	Enhancement of production of existing Blast Furnace from 3.2 MTPA to 4.25 MTPA and Sinter Plant from 4 MTPA to 5 MTPA with following specific conditions: a) Upgradation of existing APCD / prevent the additional pollution due to increase in the capacity. b) 100% utilization of BF slag / dust. c) Upgradation of gas cleaning plant of Blast Furnace to control additional effluent.	a) The existing APCD is sufficient to take load at enhanced capacity of Blast Furnace and Sinter Plant. b) Blast Furnace slag is being sold to cement manufacturer. Dust generated from APCD of Blast Furnace is being reused in Sinter Plant. c) Existing gas cleaning plant of Blast Furnace is sufficient and no additional effluent treatment system is required.
(ii)	Use of wet quenching system in coke oven batteries shall be permitted up to 31 st December, 2020.	JSPL is in the process of installing the CDQ system. MoEF&CC has been permitted use of wet quenching system till 31 st Dec 2021 vide EC amendment letter no. J – 11011/365/2006 – IA.II (I) dated 19 th January 2021.
(iii)	Wet quenching to be kept as standby for emergency operation and also to be used during annual shutdown of CDQ boiler.	After commissioning of CDQ system in the coke oven wet quenching system will be kept as standby for emergency operation and during annual shutdown of CDQ boiler.
(iv)	Deletion of 2X135 MW captive power plant i.e. change capacity of captive power plant from 1080 MW (8X135 MW) to 810 MW (6X135 MW).	810 MW (6X135 MW) captive power plant has been commissioned.
(v)	Shift of location of ash dyke with reduction in extent of the dyke area from 350 Ac to 280 Ac subject to following specific condition: a) 70 Ac will be used for development of greenbelt with native tree species.	Plantation for green belt over 70 Ac land near the ash pond with greenbelt with native tree species has been started.

Integrated Steel Plant at Angul of Jindal Steel & Power Limited
Compliance of conditions mentioned in Letter No. J – 11011/365/2006 – IA.II (I)
dated 22nd Jan 2019

Sl. No.	Conditions	Compliance
8 (i)	Shift of ash dyke as proposed within the boundary of steel plant.	Ash dyke has been constructed within plant boundary.
(ii)	All the old fly ash stock shall be utilized within two years.	We have started utilizing the old ash stocks for filling of low lying lands around the plant and necessary permission from the State pollution Control Board has been taken. Copy of permission enclosed at Annexure 16 .
(iii)	All the new fly ash generated shall be utilized as per the provisions contained in the fly ash notification dated 14/09/1999 and its amendments issued from time to time and the orders of the Hon'ble NGT dated 21/03/2014.	All the new fly ash generated is being utilized as per the provisions contained in the fly ash notification dated 14/09/1999 and its amendments issued from time to time and the orders of the Hon'ble NGT dated 21/03/2014.
(iv)	With respect to amendment of EC condition pertaining to BOD plant, the coke oven plant effluent shall be treated in the existing Bio-ETP to the desired norms and entire treated effluent shall be utilized in the plant to achieve zero discharge.	Coke Oven Plant effluent after passing through pretreatment plant (for removal of O&G and tar) is being transferred to Bio ETP of Coal gasification Plant. Coke Oven effluent is being mixed with CGP effluent and is treated in the existing Bio ETP and TETP of Coal Gasification Plant. Quality of treated effluent meets the desired norms. Entire treated effluent is being reused inside plant.

Integrated Steel Plant at Angul of Jindal Steel & Power Limited
Compliance of conditions mentioned in Letter No. J – 11011/365/2006 – IA.II (I)
dated 19th Jan 2021

Sl. No.	Conditions	Compliance
12 (ii)	Use of wet quenching system in coke oven batteries shall be permitted up to 31/12/2021. Extension of time for installation of CDQ is hereby given for another 12 months i.e. till 31/12/2021. No further extension of time will be granted to the project proponent in this regard. If the proponent fails to install CDQ by December 2021, Ministry will initiate action against the project proponent under the relevant provisions of Environment Protection Act 1986.	Construction of CDQ system is under progress and will be completed by December 2021. JSPL has applied to the SPCB-Odisha for grant of the Consent to Operate of CDQ.

No. J-11015/1015/2007-IA-II (M)pt
Government of India
Ministry of Environment, Forest & Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi-3
Dated: 11th December, 2017

To,

M/s Jindal Steel & Power Limited
Jindal Centre,
12 Bhikaji Cama Place,
New Delhi - 66

Email: jsplenvironment@jindalsteel.com; jaodish.soni@jindalsteel.com

Sub: Coal Washery 6.5 MTPA of M/s Jindal Steel & Power Limited located in village Kalkata, Tehsil Chhendipada, District Angul (Odisha) - Amendment in EC - reg.

Sir,

This has reference to your letter dated 21st November, 2016 along with online proposal No.IA/OR/CMIN/60595/2009 dated 23rd November, 2016 and subsequent letters/email dated 28.03.2017, 13.04.2017, 28.04.2017, 10.05.2017, 19.07.2017, 20.07.2017, 25.07.2017 and 18.08.2017 on the above mentioned subject

2. The proposal is for amendment/modification in the Environmental Clearance (EC) granted vide letter No.J-11015/1015/2007-IA-II (M) dated 13th October, 2009 for Coal Washery of 6.5 MTPA (ROM) of M/s Jindal Steel & Power Limited located in village Kalkata, Tehsil Chhendipada, District Angul (Odisha).

3. The proposal was considered by the EAC in its 9th meeting held on 27-28 April, 2017 and 15th meeting on 25th July, 2017. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-

(i) The EC was granted to the washery vide letter No.J-11015/1015/2007-IA-II(M) dated 13th October, 2009. The Coal washery has been established and remains in operation since May, 2013. The coal for the washery was envisaged to be sourced from the Utkal B-1 coal block and transported to the washery located within the Integrated Steel Plant complex through piped (closed) conveyers. Due to de-allocation of the said coal block, the coal procured through e-auction from Talcher Coalfields of MCL has to be transported through dedicated road and rail.

(ii) As per the EC, the washed coal was to be used in Coal Gasification Plant (CGP) of Integrated Steel plant and Middlings so generated to be used for power generation in Captive Power Plant. Presently, the CGP has been partially commissioned, having yearly demand of about 1 million metric tons of washed coal, due to which the coal washery is highly underutilized.



(iii) Company is receiving several enquiries from various PSUs and other companies dealing with Thermal Power Generation, if this washery can be used to wash the raw coal received by them from nearby coal mines of MCL so that they can comply with MOEF Notification no. G.S.R. 02 (E) dated 2nd January, 2014 to use washed coal with an ash content of not more than 34%. Our coal washery is ideally located due to its proximity to the Mines (about 20 km) and railway siding is provided in the premises. Coal from mines can be transported by dedicated road/rail to the washery and washed coal will be transported by rail. In this regard, a Memorandum of Understanding(MOU) has been signed between M/s Jindal Steel & Power Ltd. and M/s Alps Mining Services to use the said washery for washing of 2 MTPA Coal which will be increased to 4.8 MTPA in future.

(iv) In the interest of the environment, M/s JSPL proposes to use the washery for power utilities also till demand for entire washed coal is generated at its own Integrated Steel Plant.

(v) In view of above, amendment/modification is requested for the following:-

(a) To wash coal for other companies till in-house demand of 6 MTPA is achieved.

(b) To amend the specific condition 2 A(i), quotes

'The entire mineral transportation of raw coal, clean coal and middling shall be by piped (closed) conveyors only'

4. The EAC, after deliberations in its 15th meeting held on 25th July, 2017 has recommended the proposal for amendment in the environmental clearance dated 13th October, 2009 for the project, with the details as under:-

Specific condition at para 2A(i) to be replaced with, and now read as under-

'Raw coal to be transported by the dedicated road in tarpaulin covered trucks from the nearby coal mines in Telcher Coalfield, and/or by rail to the coal washery. Washed coal to be transported through piped conveyor within the steel plant and by rail to the prospective buyers/customers having firm MoU in this regard.'

4.1 The Committee also suggested to review the implementation of the action plan submitted by the project proponent, by December, 2017 for compliance status of the EC conditions, and thus the continuation of the proposed arrangement vis-à-vis the revised EC conditions.

5. Based on the recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval to the proposed amendment in the Environmental Clearance dated 13th October, 2009 for the Coal Washery 6.5 MTPA of M/s Jindal Steel & Power Limited located in village Kalkata, Tehsil Chhendipada, District Angul (Odisha), as stated in para 4 above.

6. The amendment is subject to review of implementation of the action plan submitted by the project proponent by December, 2017 for compliance status of the EC conditions, and thus continuation of the proposed arrangement vis-à-vis the revised EC conditions.

sh

7. All other terms and conditions stipulated in the EC granted vide letter dated 13th October, 2009 shall remain unchanged.


11/12/2017
(S. K. Srivastava)
Scientist E

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Secretary, Department of Environment & Forest, Government of Odisha, Secretariat, Bhubaneswar
3. The Chief Conservator of Forests, Regional office (EZ), MoEF&CC, A-31, Chandrashekarapur, Bhubaneswar - 751023
4. The Member Secretary, Odisha State Pollution Control Board, Neelakanth Nagar, Unit-VIII, Bhubaneswar
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
6. The Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
7. The Advisor, Coal India Limited, SCOPE Minar, Core-I, 4th Floor, Vikas Marg, Laxmi nagar, N Delhi
8. The IG (Wild life), Ministry of Environment and Forest, New Delhi
9. The District Collector, Angul, Government of Odisha
10. Monitoring File 11. Guard File 12. Record File 13. Notice Board


11/12/2017
(S. K. Srivastava)
Scientist E



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	STACK_34_BOF_BAG_FILTER FILTER-PM_U
Prescribed Standards	0 - 100
Maximum Data	23.54
Minimum Data	7.9
Geometric Mean	18.4
Median	17.99
Standard Deviation	2.18
Maximum Value At Time	2021-08-17
Minimum Value At Time	2021-06-03
Valid Data Points	153
Total Data Points	153
Data Availability %	100.0%

Sl No	Time	STACK_34_BOF_BAG_FILTER FILTER-PM_U
1	2021-04-01	19.76
2	2021-04-02	19.21
3	2021-04-03	18.77
4	2021-04-04	18.92
5	2021-04-05	20.46
6	2021-04-06	19.79
7	2021-04-07	19.68
8	2021-04-08	18.48
9	2021-04-09	18.31
10	2021-04-10	18.71
11	2021-04-11	18.59
12	2021-04-12	19.22
13	2021-04-13	18.04
14	2021-04-14	19.25
15	2021-04-15	19.30
16	2021-04-16	19.33
17	2021-04-17	19.00
18	2021-04-18	18.67
19	2021-04-19	17.94
20	2021-04-20	17.43
21	2021-04-21	17.66
22	2021-04-22	18.01
23	2021-04-23	17.59

SI No	Time	STACK_34_BOF_BAG_FILTER FILTER-PM_U
24	2021-04-24	17.54
25	2021-04-25	17.32
26	2021-04-26	17.51
27	2021-04-27	17.21
28	2021-04-28	17.69
29	2021-04-29	17.18
30	2021-04-30	17.40
31	2021-05-01	16.99
32	2021-05-02	17.30
33	2021-05-03	17.01
34	2021-05-04	17.46
35	2021-05-05	17.52
36	2021-05-06	17.47
37	2021-05-07	17.07
38	2021-05-08	17.13
39	2021-05-09	17.15
40	2021-05-10	17.40
41	2021-05-11	17.50
42	2021-05-12	16.87
43	2021-05-13	17.20
44	2021-05-14	17.32
45	2021-05-15	17.04
46	2021-05-16	17.23
47	2021-05-17	17.24
48	2021-05-18	18.73
49	2021-05-19	17.86
50	2021-05-20	17.08
51	2021-05-21	17.28
52	2021-05-22	17.23
53	2021-05-23	17.03
54	2021-05-24	17.19
55	2021-05-25	17.58
56	2021-05-26	18.39
57	2021-05-27	17.56
58	2021-05-28	18.17
59	2021-05-29	18.62
60	2021-05-30	17.25
61	2021-05-31	11.66
62	2021-06-01	11.65
63	2021-06-02	11.64
64	2021-06-03	7.90
65	2021-06-04	19.49

SI No	Time	STACK_34_BOF_BAG_FILTER FILTER-PM_U
66	2021-06-05	18.89
67	2021-06-06	19.25
68	2021-06-07	19.72
69	2021-06-08	18.97
70	2021-06-09	17.56
71	2021-06-10	12.64
72	2021-06-11	18.49
73	2021-06-12	17.93
74	2021-06-13	18.69
75	2021-06-14	18.18
76	2021-06-15	17.88
77	2021-06-16	18.32
78	2021-06-17	17.52
79	2021-06-18	17.46
80	2021-06-19	17.44
81	2021-06-20	17.86
82	2021-06-21	18.00
83	2021-06-22	18.48
84	2021-06-23	19.18
85	2021-06-24	17.84
86	2021-06-25	17.62
87	2021-06-26	17.64
88	2021-06-27	17.11
89	2021-06-28	17.74
90	2021-06-29	16.74
91	2021-06-30	17.11
92	2021-07-01	17.75
93	2021-07-02	17.51
94	2021-07-03	17.26
95	2021-07-04	17.72
96	2021-07-05	17.18
97	2021-07-06	18.04
98	2021-07-07	17.87
99	2021-07-08	18.12
100	2021-07-09	17.75
101	2021-07-10	17.74
102	2021-07-11	17.70
103	2021-07-12	17.74
104	2021-07-13	18.17
105	2021-07-14	17.73
106	2021-07-15	17.67

SI No	Time	STACK_34_BOF_BAG_FILTER FILTER-PM_U
107	2021-07-16	17.67
108	2021-07-17	17.99
109	2021-07-18	15.53
110	2021-07-19	18.64
111	2021-07-20	18.52
112	2021-07-21	17.91
113	2021-07-22	17.87
114	2021-07-23	18.64
115	2021-07-24	18.85
116	2021-07-25	18.18
117	2021-07-26	18.26
118	2021-07-27	18.91
119	2021-07-28	19.01
120	2021-07-29	18.72
121	2021-07-30	17.99
122	2021-07-31	17.85
123	2021-08-01	17.91
124	2021-08-02	18.04
125	2021-08-03	17.74
126	2021-08-04	18.30
127	2021-08-05	18.96
128	2021-08-06	18.10
129	2021-08-07	18.65
130	2021-08-08	18.37
131	2021-08-09	19.21
132	2021-08-10	18.77
133	2021-08-11	20.15
134	2021-08-12	22.63
135	2021-08-13	22.68
136	2021-08-14	22.81
137	2021-08-15	22.50
138	2021-08-16	22.52
139	2021-08-17	23.54
140	2021-08-18	22.17
141	2021-08-19	23.05
142	2021-08-20	22.48
143	2021-08-21	22.47
144	2021-08-22	22.02
145	2021-08-23	22.55
146	2021-08-24	22.61
147	2021-08-25	22.32

Sl No	Time	STACK_34_BOF_BAG_FILTER FILTER-PM_U
148	2021-08-26	22.27
149	2021-08-27	22.08
150	2021-08-28	22.28
151	2021-08-29	22.59
152	2021-08-30	22.74
153	2021-08-31	22.33

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	STACK_35_BF_CAST_HOUSE_EAST-PM_U
Prescribed Standards	0 - 50
Maximum Data	70.04
Minimum Data	6.47
Geometric Mean	32.03
Median	34.58
Standard Deviation	12.35
Maximum Value At Time	2021-07-19
Minimum Value At Time	2021-08-10
Valid Data Points	146
Total Data Points	153
Data Availability %	95.42%

SI No	Time	STACK_35_BF_CAST_HOUSE_EAST-PM_U
1	2021-04-01	30.19
2	2021-04-02	31.60
3	2021-04-03	31.89
4	2021-04-04	32.78
5	2021-04-05	33.03
6	2021-04-06	32.83
7	2021-04-07	33.28
8	2021-04-08	33.74
9	2021-04-09	34.67
10	2021-04-10	34.40
11	2021-04-11	35.73
12	2021-04-12	NA
13	2021-04-13	NA
14	2021-04-14	NA
15	2021-04-15	33.33
16	2021-04-16	NA
17	2021-04-17	NA
18	2021-04-18	NA
19	2021-04-19	NA
20	2021-04-20	33.65
21	2021-04-21	35.27
22	2021-04-22	35.58
23	2021-04-23	36.28

SI No	Time	STACK_35_BF_CAST_HOUSE_EAST-PM_U
24	2021-04-24	35.03
25	2021-04-25	34.17
26	2021-04-26	34.50
27	2021-04-27	34.84
28	2021-04-28	35.31
29	2021-04-29	35.72
30	2021-04-30	35.73
31	2021-05-01	36.35
32	2021-05-02	36.80
33	2021-05-03	36.49
34	2021-05-04	38.02
35	2021-05-05	38.55
36	2021-05-06	38.03
37	2021-05-07	40.83
38	2021-05-08	41.11
39	2021-05-09	42.10
40	2021-05-10	41.04
41	2021-05-11	44.74
42	2021-05-12	45.08
43	2021-05-13	48.03
44	2021-05-14	44.81
45	2021-05-15	43.90
46	2021-05-16	42.98
47	2021-05-17	42.10
48	2021-05-18	41.62
49	2021-05-19	41.87
50	2021-05-20	42.41
51	2021-05-21	44.87
52	2021-05-22	44.14
53	2021-05-23	41.77
54	2021-05-24	41.71
55	2021-05-25	46.54
56	2021-05-26	50.04
57	2021-05-27	39.62
58	2021-05-28	37.84
59	2021-05-29	38.00
60	2021-05-30	37.37
61	2021-05-31	36.23
62	2021-06-01	37.83
63	2021-06-02	41.44
64	2021-06-03	37.72
65	2021-06-04	35.93

SI No	Time	STACK_35_BF_CAST_HOUSE_EAST-PM_U
66	2021-06-05	36.14
67	2021-06-06	35.16
68	2021-06-07	35.02
69	2021-06-08	36.05
70	2021-06-09	38.84
71	2021-06-10	40.76
72	2021-06-11	39.61
73	2021-06-12	40.79
74	2021-06-13	43.67
75	2021-06-14	44.81
76	2021-06-15	45.26
77	2021-06-16	47.63
78	2021-06-17	50.60
79	2021-06-18	51.28
80	2021-06-19	48.58
81	2021-06-20	33.54
82	2021-06-21	32.33
83	2021-06-22	27.90
84	2021-06-23	22.47
85	2021-06-24	23.87
86	2021-06-25	22.78
87	2021-06-26	21.07
88	2021-06-27	19.23
89	2021-06-28	15.68
90	2021-06-29	11.32
91	2021-06-30	9.74
92	2021-07-01	10.87
93	2021-07-02	17.70
94	2021-07-03	18.94
95	2021-07-04	21.08
96	2021-07-05	18.71
97	2021-07-06	17.37
98	2021-07-07	20.72
99	2021-07-08	26.16
100	2021-07-09	24.45
101	2021-07-10	21.92
102	2021-07-11	29.04
103	2021-07-12	36.33
104	2021-07-13	44.10
105	2021-07-14	43.09
106	2021-07-15	39.85

SI No	Time	STACK_35_BF_CAST_HOUSE_EAST-PM_U
107	2021-07-16	35.51
108	2021-07-17	32.84
109	2021-07-18	45.86
110	2021-07-19	70.04
111	2021-07-20	67.74
112	2021-07-21	56.16
113	2021-07-22	31.55
114	2021-07-23	24.08
115	2021-07-24	22.95
116	2021-07-25	51.78
117	2021-07-26	49.49
118	2021-07-27	48.35
119	2021-07-28	38.28
120	2021-07-29	26.43
121	2021-07-30	29.51
122	2021-07-31	26.42
123	2021-08-01	23.09
124	2021-08-02	19.48
125	2021-08-03	21.94
126	2021-08-04	18.50
127	2021-08-05	17.10
128	2021-08-06	13.36
129	2021-08-07	11.51
130	2021-08-08	8.59
131	2021-08-09	9.32
132	2021-08-10	6.47
133	2021-08-11	8.22
134	2021-08-12	10.49
135	2021-08-13	13.55
136	2021-08-14	11.49
137	2021-08-15	11.17
138	2021-08-16	11.43
139	2021-08-17	19.10
140	2021-08-18	19.77
141	2021-08-19	25.06
142	2021-08-20	25.22
143	2021-08-21	21.05
144	2021-08-22	15.79
145	2021-08-23	12.21
146	2021-08-24	14.72
147	2021-08-25	12.74

SI No	Time	STACK_35_BF_CAST_HOUSE_EAST-PM_U
148	2021-08-26	17.09
149	2021-08-27	21.01
150	2021-08-28	24.41
151	2021-08-29	26.39
152	2021-08-30	30.30
153	2021-08-31	32.62

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	STACK_ 27_BF_CAST_HOUSE_WEST-PM_U
Prescribed Standards	0 - 50
Maximum Data	38.21
Minimum Data	0.03
Geometric Mean	24.98
Median	23.61
Standard Deviation	3.6
Maximum Value At Time	2021-04-10
Minimum Value At Time	2021-05-02
Valid Data Points	146
Total Data Points	153
Data Availability %	95.42%

Sl No	Time	STACK_ 27_BF_CAST_HOUSE_WEST-PM_U
1	2021-04-01	29.76
2	2021-04-02	30.95
3	2021-04-03	30.55
4	2021-04-04	31.49
5	2021-04-05	31.99
6	2021-04-06	31.26
7	2021-04-07	31.22
8	2021-04-08	30.87
9	2021-04-09	32.12
10	2021-04-10	38.21
11	2021-04-11	24.99
12	2021-04-12	NA
13	2021-04-13	NA
14	2021-04-14	NA
15	2021-04-15	25.88
16	2021-04-16	NA
17	2021-04-17	NA
18	2021-04-18	NA
19	2021-04-19	NA
20	2021-04-20	27.79
21	2021-04-21	29.60
22	2021-04-22	35.02
23	2021-04-23	30.51

SI No	Time	STACK_27_BF_CAST_HOUSE_WEST-PM_U
24	2021-04-24	29.54
25	2021-04-25	28.41
26	2021-04-26	28.83
27	2021-04-27	29.38
28	2021-04-28	29.54
29	2021-04-29	30.34
30	2021-04-30	30.09
31	2021-05-01	18.76
32	2021-05-02	0.03
33	2021-05-03	21.39
34	2021-05-04	32.27
35	2021-05-05	31.29
36	2021-05-06	28.23
37	2021-05-07	24.42
38	2021-05-08	24.45
39	2021-05-09	24.46
40	2021-05-10	24.52
41	2021-05-11	24.32
42	2021-05-12	24.32
43	2021-05-13	24.12
44	2021-05-14	24.46
45	2021-05-15	25.85
46	2021-05-16	28.55
47	2021-05-17	26.95
48	2021-05-18	27.04
49	2021-05-19	27.00
50	2021-05-20	26.92
51	2021-05-21	26.82
52	2021-05-22	26.78
53	2021-05-23	26.85
54	2021-05-24	26.90
55	2021-05-25	26.55
56	2021-05-26	26.24
57	2021-05-27	26.39
58	2021-05-28	26.62
59	2021-05-29	26.77
60	2021-05-30	26.86
61	2021-05-31	26.50
62	2021-06-01	28.46
63	2021-06-02	23.70
64	2021-06-03	23.76
65	2021-06-04	23.96

SI No	Time	STACK_27_BF_CAST_HOUSE_WEST-PM_U
66	2021-06-05	23.90
67	2021-06-06	23.95
68	2021-06-07	24.04
69	2021-06-08	23.88
70	2021-06-09	23.62
71	2021-06-10	23.57
72	2021-06-11	23.65
73	2021-06-12	23.70
74	2021-06-13	23.47
75	2021-06-14	23.56
76	2021-06-15	23.64
77	2021-06-16	23.50
78	2021-06-17	23.25
79	2021-06-18	23.27
80	2021-06-19	23.22
81	2021-06-20	23.47
82	2021-06-21	23.61
83	2021-06-22	23.37
84	2021-06-23	23.26
85	2021-06-24	23.34
86	2021-06-25	23.37
87	2021-06-26	23.34
88	2021-06-27	23.38
89	2021-06-28	23.53
90	2021-06-29	23.70
91	2021-06-30	23.71
92	2021-07-01	23.66
93	2021-07-02	23.48
94	2021-07-03	23.44
95	2021-07-04	23.45
96	2021-07-05	23.60
97	2021-07-06	23.64
98	2021-07-07	23.52
99	2021-07-08	23.37
100	2021-07-09	23.37
101	2021-07-10	23.42
102	2021-07-11	23.36
103	2021-07-12	23.24
104	2021-07-13	23.17
105	2021-07-14	23.30
106	2021-07-15	23.35

SI No	Time	STACK_27_BF_CAST_HOUSE_WEST-PM_U
107	2021-07-16	23.40
108	2021-07-17	23.54
109	2021-07-18	23.46
110	2021-07-19	23.49
111	2021-07-20	23.38
112	2021-07-21	23.31
113	2021-07-22	23.39
114	2021-07-23	23.34
115	2021-07-24	23.31
116	2021-07-25	23.51
117	2021-07-26	23.50
118	2021-07-27	23.23
119	2021-07-28	23.28
120	2021-07-29	23.32
121	2021-07-30	23.22
122	2021-07-31	23.31
123	2021-08-01	23.46
124	2021-08-02	23.53
125	2021-08-03	23.47
126	2021-08-04	23.51
127	2021-08-05	23.56
128	2021-08-06	23.64
129	2021-08-07	23.61
130	2021-08-08	23.58
131	2021-08-09	23.61
132	2021-08-10	23.69
133	2021-08-11	23.64
134	2021-08-12	23.57
135	2021-08-13	23.46
136	2021-08-14	23.48
137	2021-08-15	23.46
138	2021-08-16	23.41
139	2021-08-17	23.27
140	2021-08-18	23.32
141	2021-08-19	23.21
142	2021-08-20	23.25
143	2021-08-21	23.34
144	2021-08-22	23.48
145	2021-08-23	23.58
146	2021-08-24	23.53
147	2021-08-25	23.62

SI No	Time	STACK_27_BF_CAST_HOUSE_WEST-PM_U
148	2021-08-26	23.56
149	2021-08-27	23.54
150	2021-08-28	23.46
151	2021-08-29	23.44
152	2021-08-30	23.43
153	2021-08-31	23.35

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	STACK_36_BF_PCI-SO2_U	STACK_36_BF_PCI-NOx_U	STACK_36_BF_PCI-PM_U
Prescribed Standards	0 -	0 -	0 - 50
Maximum Data	171.64	91.7	36.41
Minimum Data	0.06	0.0	18.71
Geometric Mean	107.45	24.46	23.58
Median	156.77	21.01	23.28
Standard Deviation	65.53	18.78	2.94
Maximum Value At Time	2021-04-20	2021-08-06	2021-06-09
Minimum Value At Time	2021-07-31	2021-07-31	2021-04-20
Valid Data Points	146	146	146
Total Data Points	153	153	153
Data Availability %	95.42%	95.42%	95.42%

SI No	Time	STACK_36_BF_PCI-SO2_U	STACK_36_BF_PCI-NOx_U	STACK_36_BF_PCI-PM_U
1	2021-04-01	154.65	42.42	20.38
2	2021-04-02	157.08	34.24	21.06
3	2021-04-03	158.31	25.78	22.87
4	2021-04-04	155.83	45.47	20.53
5	2021-04-05	155.77	48.74	21.36
6	2021-04-06	156.26	46.35	21.83
7	2021-04-07	156.48	37.35	21.45
8	2021-04-08	156.70	39.23	21.04
9	2021-04-09	156.85	41.53	22.56
10	2021-04-10	157.56	42.47	21.99
11	2021-04-11	158.66	32.41	20.11
12	2021-04-12	NA	NA	NA
13	2021-04-13	NA	NA	NA
14	2021-04-14	NA	NA	NA
15	2021-04-15	165.02	19.59	19.68
16	2021-04-16	NA	NA	NA
17	2021-04-17	NA	NA	NA
18	2021-04-18	NA	NA	NA
19	2021-04-19	NA	NA	NA
20	2021-04-20	171.64	17.69	18.71
21	2021-04-21	168.78	18.80	19.08
22	2021-04-22	164.59	41.12	19.81
23	2021-04-23	163.39	42.31	21.14
24	2021-04-24	162.84	40.67	21.41

SI No	Time	STACK_36_BF_PCI-SO2_U	STACK_36_BF_PCI-NOx_U	STACK_36_BF_PCI-PM_U
25	2021-04-25	162.82	38.29	21.03
26	2021-04-26	162.35	36.62	22.36
27	2021-04-27	162.50	32.48	22.45
28	2021-04-28	162.65	30.22	23.09
29	2021-04-29	162.60	26.78	22.24
30	2021-04-30	162.21	26.94	22.14
31	2021-05-01	161.56	33.07	22.77
32	2021-05-02	161.48	32.18	23.46
33	2021-05-03	161.21	36.19	22.24
34	2021-05-04	161.06	36.28	21.50
35	2021-05-05	161.04	34.39	21.43
36	2021-05-06	161.10	34.79	20.32
37	2021-05-07	161.40	30.02	20.31
38	2021-05-08	161.32	33.65	20.02
39	2021-05-09	161.50	31.06	19.98
40	2021-05-10	161.73	31.95	19.27
41	2021-05-11	162.01	29.65	24.49
42	2021-05-12	162.02	33.39	23.29
43	2021-05-13	162.18	31.25	21.55
44	2021-05-14	162.33	33.10	20.39
45	2021-05-15	162.99	26.52	19.71
46	2021-05-16	163.72	22.42	20.05
47	2021-05-17	164.13	20.44	20.51
48	2021-05-18	164.43	21.15	20.62
49	2021-05-19	164.88	19.92	20.48
50	2021-05-20	165.34	17.31	20.39
51	2021-05-21	165.11	16.74	19.89
52	2021-05-22	164.93	20.51	20.90
53	2021-05-23	164.78	22.92	19.64
54	2021-05-24	164.92	22.91	19.57
55	2021-05-25	164.64	23.52	23.67
56	2021-05-26	164.31	28.79	34.54
57	2021-05-27	164.23	30.07	33.69
58	2021-05-28	164.48	26.96	27.36
59	2021-05-29	165.27	19.58	24.60
60	2021-05-30	165.56	18.35	21.70
61	2021-05-31	165.98	18.05	20.72
62	2021-06-01	166.06	19.39	21.93
63	2021-06-02	165.97	20.20	23.62
64	2021-06-03	165.90	24.85	21.80
65	2021-06-04	166.20	21.14	20.63

SI No	Time	STACK_36_BF_PCI-SO2_U	STACK_36_BF_PCI-NOx_U	STACK_36_BF_PCI-PM_U
66	2021-06-05	166.71	18.14	21.87
67	2021-06-06	167.03	17.59	20.30
68	2021-06-07	167.48	14.94	22.62
69	2021-06-08	167.56	15.97	23.56
70	2021-06-09	167.17	19.02	36.41
71	2021-06-10	166.73	23.19	35.54
72	2021-06-11	166.80	23.08	30.71
73	2021-06-12	167.13	19.76	27.13
74	2021-06-13	167.31	17.78	25.74
75	2021-06-14	167.19	19.93	25.36
76	2021-06-15	167.08	22.27	25.42
77	2021-06-16	167.26	20.39	25.54
78	2021-06-17	167.19	20.88	24.93
79	2021-06-18	167.16	25.16	24.77
80	2021-06-19	167.21	24.65	23.90
81	2021-06-20	167.41	23.02	24.50
82	2021-06-21	167.85	19.75	23.92
83	2021-06-22	168.09	18.99	24.98
84	2021-06-23	168.20	24.44	24.15
85	2021-06-24	167.98	49.33	24.39
86	2021-06-25	167.84	48.23	22.47
87	2021-06-26	98.80	24.84	23.41
88	2021-06-27	26.22	0.04	23.06
89	2021-06-28	27.65	0.21	23.52
90	2021-06-29	29.35	16.19	23.10
91	2021-06-30	30.38	34.88	23.05
92	2021-07-01	31.14	25.56	23.20
93	2021-07-02	31.67	21.16	23.21
94	2021-07-03	32.23	19.57	23.05
95	2021-07-04	32.57	17.91	22.33
96	2021-07-05	32.87	15.80	24.06
97	2021-07-06	33.00	12.83	22.01
98	2021-07-07	33.39	10.69	22.71
99	2021-07-08	33.66	13.16	22.29
100	2021-07-09	33.76	14.17	23.09
101	2021-07-10	33.88	13.59	22.23
102	2021-07-11	33.98	11.21	22.69
103	2021-07-12	34.24	11.59	23.46
104	2021-07-13	34.32	11.41	23.69
105	2021-07-14	34.44	11.30	24.12
106	2021-07-15	34.91	12.46	23.27
107	2021-07-16	36.10	17.80	23.12

SI No	Time	STACK_36_BF_PCI-SO2_U	STACK_36_BF_PCI-NOx_U	STACK_36_BF_PCI-PM_U
108	2021-07-17	42.06	13.16	25.99
109	2021-07-18	54.50	1.38	24.81
110	2021-07-19	54.42	7.31	23.03
111	2021-07-20	54.45	8.50	23.74
112	2021-07-21	54.53	8.03	22.27
113	2021-07-22	54.70	7.81	23.04
114	2021-07-23	54.84	8.64	23.97
115	2021-07-24	54.98	9.44	24.13
116	2021-07-25	55.10	7.94	26.09
117	2021-07-26	55.18	8.55	26.22
118	2021-07-27	55.24	10.33	27.77
119	2021-07-28	55.52	7.01	26.64
120	2021-07-29	55.69	0.01	26.38
121	2021-07-30	48.75	0.02	27.49
122	2021-07-31	0.06	0.00	27.25
123	2021-08-01	64.74	45.11	26.96
124	2021-08-02	131.66	91.63	26.02
125	2021-08-03	131.67	91.63	25.85
126	2021-08-04	131.67	91.68	26.39
127	2021-08-05	131.68	91.67	24.78
128	2021-08-06	100.54	91.70	26.06
129	2021-08-07	5.58	43.41	25.87
130	2021-08-08	7.92	12.50	24.06
131	2021-08-09	8.78	3.51	23.96
132	2021-08-10	9.28	5.94	25.57
133	2021-08-11	13.34	4.33	25.74
134	2021-08-12	14.31	1.94	25.35
135	2021-08-13	7.89	0.00	25.19
136	2021-08-14	0.73	0.00	23.85
137	2021-08-15	0.06	0.00	25.67
138	2021-08-16	0.07	0.00	25.21
139	2021-08-17	0.07	0.00	25.33
140	2021-08-18	0.06	0.01	26.58
141	2021-08-19	0.06	0.00	27.01
142	2021-08-20	0.06	0.00	25.85
143	2021-08-21	0.06	0.00	25.98
144	2021-08-22	0.06	0.00	25.77
145	2021-08-23	5.14	14.38	23.57
146	2021-08-24	32.26	32.77	24.14
147	2021-08-25	47.54	33.02	21.17
148	2021-08-26	78.97	54.89	22.80

SI No	Time	STACK_36_BF_PCI-SO2_U	STACK_36_BF_PCI-NOx_U	STACK_36_BF_PCI-PM_U
149	2021-08-27	78.96	54.89	24.77
150	2021-08-28	78.96	54.89	24.30
151	2021-08-29	78.96	54.89	23.51
152	2021-08-30	67.42	43.74	24.36
153	2021-08-31	25.34	21.81	23.86

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	STACK_26_BF_STOCK_HOUSE-PM_U
Prescribed Standards	0 - 50
Maximum Data	55.08
Minimum Data	5.13
Geometric Mean	24.52
Median	22.56
Standard Deviation	10.75
Maximum Value At Time	2021-05-13
Minimum Value At Time	2021-06-02
Valid Data Points	146
Total Data Points	153
Data Availability %	95.42%

SI No	Time	STACK_26_BF_STOCK_HOUSE-PM_U
1	2021-04-01	30.43
2	2021-04-02	31.25
3	2021-04-03	33.55
4	2021-04-04	35.14
5	2021-04-05	35.73
6	2021-04-06	35.63
7	2021-04-07	36.45
8	2021-04-08	38.09
9	2021-04-09	38.45
10	2021-04-10	37.01
11	2021-04-11	39.09
12	2021-04-12	NA
13	2021-04-13	NA
14	2021-04-14	NA
15	2021-04-15	33.81
16	2021-04-16	NA
17	2021-04-17	NA
18	2021-04-18	NA
19	2021-04-19	NA
20	2021-04-20	30.66
21	2021-04-21	33.56
22	2021-04-22	33.50
23	2021-04-23	34.33
24	2021-04-24	33.17

SI No	Time	STACK_26_BF_STOCK_HOUSE-PM_U
25	2021-04-25	31.38
26	2021-04-26	32.02
27	2021-04-27	32.96
28	2021-04-28	37.07
29	2021-04-29	35.81
30	2021-04-30	36.28
31	2021-05-01	34.83
32	2021-05-02	34.94
33	2021-05-03	35.56
34	2021-05-04	36.92
35	2021-05-05	37.83
36	2021-05-06	36.97
37	2021-05-07	42.51
38	2021-05-08	40.87
39	2021-05-09	41.11
40	2021-05-10	25.37
41	2021-05-11	45.71
42	2021-05-12	47.15
43	2021-05-13	55.08
44	2021-05-14	46.44
45	2021-05-15	43.78
46	2021-05-16	40.06
47	2021-05-17	36.81
48	2021-05-18	36.85
49	2021-05-19	39.62
50	2021-05-20	39.99
51	2021-05-21	43.60
52	2021-05-22	20.27
53	2021-05-23	15.55
54	2021-05-24	17.67
55	2021-05-25	29.15
56	2021-05-26	40.25
57	2021-05-27	23.98
58	2021-05-28	8.68
59	2021-05-29	8.31
60	2021-05-30	7.31
61	2021-05-31	6.10
62	2021-06-01	6.29
63	2021-06-02	5.13
64	2021-06-03	6.04
65	2021-06-04	6.15

SI No	Time	STACK_26_BF_STOCK_HOUSE-PM_U
66	2021-06-05	6.13
67	2021-06-06	5.88
68	2021-06-07	5.49
69	2021-06-08	5.86
70	2021-06-09	10.16
71	2021-06-10	6.42
72	2021-06-11	9.72
73	2021-06-12	11.20
74	2021-06-13	16.54
75	2021-06-14	14.03
76	2021-06-15	14.31
77	2021-06-16	14.36
78	2021-06-17	19.52
79	2021-06-18	17.82
80	2021-06-19	18.26
81	2021-06-20	14.60
82	2021-06-21	13.11
83	2021-06-22	14.88
84	2021-06-23	17.90
85	2021-06-24	18.22
86	2021-06-25	15.64
87	2021-06-26	15.79
88	2021-06-27	16.49
89	2021-06-28	14.34
90	2021-06-29	13.64
91	2021-06-30	13.67
92	2021-07-01	13.28
93	2021-07-02	16.87
94	2021-07-03	17.00
95	2021-07-04	16.95
96	2021-07-05	15.62
97	2021-07-06	15.21
98	2021-07-07	16.64
99	2021-07-08	18.66
100	2021-07-09	18.52
101	2021-07-10	17.01
102	2021-07-11	20.14
103	2021-07-12	22.70
104	2021-07-13	25.43
105	2021-07-14	22.68
106	2021-07-15	20.64
107	2021-07-16	18.48

SI No	Time	STACK_26_BF_STOCK_HOUSE-PM_U
108	2021-07-17	15.17
109	2021-07-18	15.64
110	2021-07-19	16.70
111	2021-07-20	19.03
112	2021-07-21	23.98
113	2021-07-22	20.90
114	2021-07-23	24.06
115	2021-07-24	22.83
116	2021-07-25	20.73
117	2021-07-26	19.73
118	2021-07-27	30.04
119	2021-07-28	30.11
120	2021-07-29	27.12
121	2021-07-30	34.87
122	2021-07-31	27.94
123	2021-08-01	25.05
124	2021-08-02	23.23
125	2021-08-03	23.58
126	2021-08-04	22.43
127	2021-08-05	22.21
128	2021-08-06	21.38
129	2021-08-07	20.60
130	2021-08-08	20.48
131	2021-08-09	20.52
132	2021-08-10	19.62
133	2021-08-11	20.26
134	2021-08-12	21.29
135	2021-08-13	24.81
136	2021-08-14	21.38
137	2021-08-15	20.87
138	2021-08-16	21.03
139	2021-08-17	27.90
140	2021-08-18	28.02
141	2021-08-19	30.19
142	2021-08-20	28.30
143	2021-08-21	25.48
144	2021-08-22	21.63
145	2021-08-23	21.71
146	2021-08-24	22.45
147	2021-08-25	21.55
148	2021-08-26	23.17

SI No	Time	STACK_26_BF_STOCK_HOUSE-PM_U
149	2021-08-27	26.34
150	2021-08-28	29.40
151	2021-08-29	31.10
152	2021-08-30	31.42
153	2021-08-31	35.70

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	STACK_25_BF_STOVE-SO2_U	STACK_25_BF_STOVE-NOx_U	STACK_25_BF_STOVE-PM_U
Prescribed Standards	0 - 200	0 - 150	0 - 50
Maximum Data	149.65	74.41	45.92
Minimum Data	27.44	0.0	15.55
Geometric Mean	97.32	15.32	22.37
Median	101.25	2.74	20.2
Standard Deviation	28.76	19.83	5.46
Maximum Value At Time	2021-07-10	2021-04-06	2021-06-09
Minimum Value At Time	2021-04-01	2021-04-02	2021-05-29
Valid Data Points	115	146	146
Total Data Points	153	153	153
Data Availability %	75.16%	95.42%	95.42%

SI No	Time	STACK_25_BF_STOVE-SO2_U	STACK_25_BF_STOVE-NOx_U	STACK_25_BF_STOVE-PM_U
1	2021-04-01	27.44	0.07	18.25
2	2021-04-02	27.57	0.00	19.83
3	2021-04-03	58.08	39.71	18.43
4	2021-04-04	86.69	56.75	18.89
5	2021-04-05	88.16	72.57	19.08
6	2021-04-06	91.78	74.41	18.82
7	2021-04-07	97.01	52.67	18.63
8	2021-04-08	82.57	50.19	18.75
9	2021-04-09	92.27	37.82	19.11
10	2021-04-10	95.48	58.00	18.42
11	2021-04-11	96.12	71.44	18.73
12	2021-04-12	NA	NA	NA
13	2021-04-13	NA	NA	NA
14	2021-04-14	NA	NA	NA
15	2021-04-15	38.78	0.00	16.60
16	2021-04-16	NA	NA	NA
17	2021-04-17	NA	NA	NA
18	2021-04-18	NA	NA	NA
19	2021-04-19	NA	NA	NA
20	2021-04-20	43.58	0.00	17.70
21	2021-04-21	44.16	0.00	18.28
22	2021-04-22	74.77	42.27	18.77

SI No	Time	STACK_25_BF_STOVE-SO2_U	STACK_25_BF_STOVE-NOx_U	STACK_25_BF_STOVE-PM_U
23	2021-04-23	48.28	2.36	18.43
24	2021-04-24	47.06	0.00	17.50
25	2021-04-25	48.35	0.00	16.91
26	2021-04-26	49.49	0.00	17.09
27	2021-04-27	50.30	0.03	17.41
28	2021-04-28	63.23	14.41	17.14
29	2021-04-29	90.02	46.83	17.12
30	2021-04-30	76.46	24.53	17.78
31	2021-05-01	58.91	1.60	17.12
32	2021-05-02	60.10	0.00	17.60
33	2021-05-03	61.77	1.55	17.43
34	2021-05-04	63.37	0.00	16.62
35	2021-05-05	64.67	0.19	16.71
36	2021-05-06	65.24	0.46	17.31
37	2021-05-07	62.31	0.00	17.34
38	2021-05-08	63.22	0.12	16.94
39	2021-05-09	63.58	0.00	17.07
40	2021-05-10	64.61	0.00	17.15
41	2021-05-11	65.40	0.38	17.95
42	2021-05-12	67.47	1.11	16.33
43	2021-05-13	68.08	0.02	17.69
44	2021-05-14	69.26	0.06	16.26
45	2021-05-15	69.01	0.00	16.43
46	2021-05-16	70.31	0.00	15.60
47	2021-05-17	73.26	0.20	17.44
48	2021-05-18	79.68	0.04	17.98
49	2021-05-19	83.13	1.38	17.48
50	2021-05-20	82.59	4.60	16.73
51	2021-05-21	81.27	0.36	16.78
52	2021-05-22	83.52	0.00	16.45
53	2021-05-23	85.52	0.00	15.96
54	2021-05-24	86.79	0.00	15.81
55	2021-05-25	88.00	0.00	18.38
56	2021-05-26	93.22	5.28	19.99
57	2021-05-27	92.96	0.66	18.96
58	2021-05-28	92.06	0.12	19.34
59	2021-05-29	92.81	0.85	15.55
60	2021-05-30	94.27	0.00	16.81
61	2021-05-31	95.62	0.71	17.74
62	2021-06-01	96.85	0.45	30.35
63	2021-06-02	99.30	0.61	22.94
64	2021-06-03	101.25	3.03	18.23

SI No	Time	STACK_25_BF_STOVE-SO2_U	STACK_25_BF_STOVE-NOx_U	STACK_25_BF_STOVE-PM_U
65	2021-06-04	100.98	0.00	17.81
66	2021-06-05	102.35	0.20	18.74
67	2021-06-06	103.54	0.75	18.09
68	2021-06-07	104.60	1.15	17.83
69	2021-06-08	105.75	1.41	20.07
70	2021-06-09	107.04	0.70	45.92
71	2021-06-10	108.10	0.26	21.64
72	2021-06-11	108.72	0.02	19.15
73	2021-06-12	109.34	0.02	19.12
74	2021-06-13	110.52	0.30	19.88
75	2021-06-14	111.79	0.42	18.95
76	2021-06-15	112.68	0.30	18.76
77	2021-06-16	113.52	0.38	18.82
78	2021-06-17	115.02	0.75	20.32
79	2021-06-18	116.29	0.86	19.58
80	2021-06-19	117.53	1.00	20.54
81	2021-06-20	118.44	0.77	18.92
82	2021-06-21	119.01	0.51	18.39
83	2021-06-22	119.76	0.82	19.06
84	2021-06-23	121.57	2.35	22.20
85	2021-06-24	122.64	1.59	19.24
86	2021-06-25	123.54	0.97	19.40
87	2021-06-26	124.41	0.79	19.62
88	2021-06-27	125.45	1.75	20.38
89	2021-06-28	126.66	2.46	20.37
90	2021-06-29	127.55	2.14	20.71
91	2021-06-30	130.22	4.97	21.29
92	2021-07-01	132.95	12.61	21.76
93	2021-07-02	134.00	16.66	22.71
94	2021-07-03	135.40	13.97	22.65
95	2021-07-04	136.55	11.16	22.93
96	2021-07-05	138.02	10.31	22.59
97	2021-07-06	139.36	10.50	22.85
98	2021-07-07	139.63	10.10	23.19
99	2021-07-08	141.25	10.34	24.35
100	2021-07-09	147.87	10.98	24.66
101	2021-07-10	149.65	12.76	24.95
102	2021-07-11	NA	13.70	25.39
103	2021-07-12	NA	10.03	26.91
104	2021-07-13	NA	9.66	27.78
105	2021-07-14	NA	9.91	27.71

SI No	Time	STACK_25_BF_STOVE-SO2_U	STACK_25_BF_STOVE-NOx_U	STACK_25_BF_STOVE-PM_U
106	2021-07-15	NA	10.23	28.61
107	2021-07-16	NA	10.19	29.52
108	2021-07-17	NA	10.34	45.28
109	2021-07-18	NA	10.56	33.49
110	2021-07-19	NA	9.55	33.06
111	2021-07-20	NA	10.80	28.95
112	2021-07-21	NA	3.64	27.99
113	2021-07-22	NA	1.42	27.78
114	2021-07-23	NA	0.17	28.68
115	2021-07-24	NA	0.37	29.20
116	2021-07-25	NA	0.71	28.62
117	2021-07-26	NA	1.10	28.68
118	2021-07-27	NA	1.29	32.93
119	2021-07-28	NA	14.88	29.27
120	2021-07-29	NA	25.56	28.70
121	2021-07-30	NA	22.16	26.65
122	2021-07-31	NA	25.90	26.34
123	2021-08-01	NA	53.47	25.82
124	2021-08-02	NA	60.28	25.47
125	2021-08-03	NA	53.59	25.87
126	2021-08-04	NA	54.69	25.71
127	2021-08-05	NA	54.52	25.55
128	2021-08-06	NA	55.39	25.10
129	2021-08-07	NA	45.20	24.95
130	2021-08-08	113.90	51.63	25.07
131	2021-08-09	NA	42.98	26.01
132	2021-08-10	NA	46.38	25.20
133	2021-08-11	NA	36.78	25.55
134	2021-08-12	116.11	32.39	25.98
135	2021-08-13	117.07	34.68	26.51
136	2021-08-14	115.87	33.97	26.42
137	2021-08-15	117.71	31.75	26.72
138	2021-08-16	119.51	32.83	26.93
139	2021-08-17	115.23	28.78	27.91
140	2021-08-18	113.86	37.34	27.16
141	2021-08-19	119.74	33.39	28.08
142	2021-08-20	125.37	29.14	28.09
143	2021-08-21	125.42	30.84	28.18
144	2021-08-22	125.73	34.37	28.18
145	2021-08-23	124.42	30.32	27.92
146	2021-08-24	124.29	31.95	27.61

SI No	Time	STACK_25_BF_STOVE-SO2_U	STACK_25_BF_STOVE-NOx_U	STACK_25_BF_STOVE-PM_U
147	2021-08-25	124.30	28.68	27.33
148	2021-08-26	118.54	33.04	28.16
149	2021-08-27	120.24	29.90	28.40
150	2021-08-28	122.67	29.76	28.29
151	2021-08-29	122.89	39.48	28.59
152	2021-08-30	126.66	34.19	29.36
153	2021-08-31	123.25	47.97	29.27

Report Details: JSPLAngul | 2021-09-08 12:08:50 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_23_Rebar_Mill-NOx_U	Stack_23_Rebar_Mill-SO2_U	Stack_23_Rebar_Mill-PM_U
Prescribed Standards	0 -	0 -	0 - 50
Maximum Data	493.38	730.09	29.2
Minimum Data	9.08	1.2	0.0
Geometric Mean	110.45	135.25	2.36
Median	92.43	95.65	0.0
Standard Deviation	86.56	140.68	5.06
Maximum Value At Time	2021-07-10	2021-04-05	2021-08-31
Minimum Value At Time	2021-08-14	2021-07-01	2021-04-01
Valid Data Points	53	153	153
Total Data Points	153	153	153
Data Availability %	34.64%	100.0%	100.0%

SI No	Time	Stack_23_Rebar_Mill-NOx_U	Stack_23_Rebar_Mill-SO2_U	Stack_23_Rebar_Mill-PM_U
1	2021-04-01	NA	116.47	0.00
2	2021-04-02	NA	447.13	0.00
3	2021-04-03	NA	545.15	0.00
4	2021-04-04	NA	95.65	0.00
5	2021-04-05	NA	730.09	0.00
6	2021-04-06	NA	20.44	0.00
7	2021-04-07	NA	86.99	0.00
8	2021-04-08	NA	79.06	0.27
9	2021-04-09	NA	184.52	0.59
10	2021-04-10	NA	93.29	0.00
11	2021-04-11	NA	27.54	0.00
12	2021-04-12	NA	119.81	0.00
13	2021-04-13	NA	216.48	0.00
14	2021-04-14	NA	180.83	0.00
15	2021-04-15	NA	472.89	0.54
16	2021-04-16	NA	107.84	0.35
17	2021-04-17	NA	61.39	1.12
18	2021-04-18	NA	25.10	6.81
19	2021-04-19	NA	116.11	5.63
20	2021-04-20	NA	200.71	0.93
21	2021-04-21	NA	295.85	10.44
22	2021-04-22	NA	175.03	0.00
23	2021-04-23	NA	127.78	0.00
24	2021-04-24	NA	612.64	0.01

SI No	Time	Stack_23_Rebar_Mill-NOx_U	Stack_23_Rebar_Mill-SO2_U	Stack_23_Rebar_Mill-PM_U
25	2021-04-25	NA	126.56	0.57
26	2021-04-26	NA	449.31	0.00
27	2021-04-27	NA	256.20	0.00
28	2021-04-28	NA	2.97	0.00
29	2021-04-29	NA	106.62	0.00
30	2021-04-30	NA	137.06	0.00
31	2021-05-01	NA	75.28	0.00
32	2021-05-02	NA	164.01	0.00
33	2021-05-03	NA	71.20	0.00
34	2021-05-04	NA	32.54	0.00
35	2021-05-05	NA	51.67	0.00
36	2021-05-06	NA	386.56	0.00
37	2021-05-07	NA	134.62	0.86
38	2021-05-08	NA	90.35	0.41
39	2021-05-09	NA	237.15	0.00
40	2021-05-10	NA	16.03	0.00
41	2021-05-11	NA	182.01	0.05
42	2021-05-12	NA	391.88	7.44
43	2021-05-13	NA	2.54	0.02
44	2021-05-14	NA	194.48	0.69
45	2021-05-15	NA	205.04	2.62
46	2021-05-16	NA	5.22	0.46
47	2021-05-17	NA	11.95	10.85
48	2021-05-18	NA	164.71	7.90
49	2021-05-19	NA	423.78	12.88
50	2021-05-20	NA	98.66	12.44
51	2021-05-21	NA	56.63	13.30
52	2021-05-22	NA	88.01	13.16
53	2021-05-23	NA	455.45	12.82
54	2021-05-24	NA	390.00	11.52
55	2021-05-25	NA	39.70	9.95
56	2021-05-26	NA	434.13	2.04
57	2021-05-27	NA	120.71	3.64
58	2021-05-28	NA	122.51	2.43
59	2021-05-29	NA	532.82	4.92
60	2021-05-30	NA	687.73	10.62
61	2021-05-31	NA	311.83	9.45
62	2021-06-01	NA	185.67	5.44
63	2021-06-02	NA	288.73	21.81
64	2021-06-03	NA	258.30	9.54
65	2021-06-04	NA	35.94	3.38

SI No	Time	Stack_23_Rebar_Mill-NOx_U	Stack_23_Rebar_Mill-SO2_U	Stack_23_Rebar_Mill-PM_U
66	2021-06-05	NA	61.04	10.79
67	2021-06-06	NA	193.94	15.51
68	2021-06-07	NA	147.08	18.04
69	2021-06-08	NA	95.04	15.70
70	2021-06-09	NA	169.46	0.04
71	2021-06-10	NA	83.22	0.00
72	2021-06-11	NA	185.10	0.00
73	2021-06-12	NA	227.14	0.00
74	2021-06-13	NA	13.05	0.00
75	2021-06-14	NA	7.33	0.00
76	2021-06-15	NA	287.49	0.00
77	2021-06-16	NA	127.94	0.00
78	2021-06-17	NA	30.43	0.00
79	2021-06-18	NA	45.26	0.00
80	2021-06-19	NA	88.46	0.00
81	2021-06-20	NA	48.87	0.00
82	2021-06-21	NA	115.60	0.00
83	2021-06-22	NA	17.46	0.00
84	2021-06-23	NA	22.59	0.00
85	2021-06-24	NA	66.92	0.00
86	2021-06-25	NA	227.12	0.00
87	2021-06-26	NA	250.63	0.00
88	2021-06-27	NA	178.23	0.00
89	2021-06-28	NA	102.52	0.00
90	2021-06-29	NA	74.07	0.00
91	2021-06-30	NA	2.53	0.00
92	2021-07-01	NA	1.20	0.00
93	2021-07-02	NA	20.30	0.00
94	2021-07-03	NA	2.03	0.03
95	2021-07-04	NA	21.49	0.00
96	2021-07-05	NA	92.34	0.00
97	2021-07-06	NA	58.37	0.00
98	2021-07-07	NA	13.26	0.00
99	2021-07-08	NA	36.10	0.00
100	2021-07-09	NA	151.53	0.00
101	2021-07-10	493.38	39.18	0.00
102	2021-07-11	166.15	7.99	0.00
103	2021-07-12	149.19	4.62	0.00
104	2021-07-13	13.78	23.34	0.00
105	2021-07-14	14.45	183.78	0.00
106	2021-07-15	70.12	288.18	0.00
107	2021-07-16	182.53	187.36	0.00

SI No	Time	Stack_23_Rebar_Mill-NOx_U	Stack_23_Rebar_Mill-SO2_U	Stack_23_Rebar_Mill-PM_U
108	2021-07-17	26.35	116.50	0.00
109	2021-07-18	92.27	129.66	0.00
110	2021-07-19	213.20	19.72	0.00
111	2021-07-20	70.12	24.50	0.00
112	2021-07-21	170.64	36.68	0.00
113	2021-07-22	138.74	4.96	0.54
114	2021-07-23	13.42	260.42	2.63
115	2021-07-24	118.48	36.09	4.64
116	2021-07-25	33.53	132.61	5.54
117	2021-07-26	24.12	111.85	0.00
118	2021-07-27	18.25	139.82	0.00
119	2021-07-28	28.14	105.86	0.00
120	2021-07-29	110.36	58.25	0.00
121	2021-07-30	164.84	9.14	0.17
122	2021-07-31	221.12	39.19	0.00
123	2021-08-01	61.74	122.90	0.00
124	2021-08-02	70.27	56.08	0.00
125	2021-08-03	12.03	2.75	0.00
126	2021-08-04	206.36	31.75	0.00
127	2021-08-05	185.34	50.21	0.00
128	2021-08-06	28.59	93.72	0.00
129	2021-08-07	37.76	106.65	0.00
130	2021-08-08	177.11	22.92	0.00
131	2021-08-09	68.95	45.28	0.00
132	2021-08-10	154.46	19.55	0.00
133	2021-08-11	101.19	41.82	0.00
134	2021-08-12	125.82	169.40	2.11
135	2021-08-13	103.59	46.17	0.00
136	2021-08-14	9.08	15.45	0.00
137	2021-08-15	141.10	96.62	0.00
138	2021-08-16	276.53	7.93	0.00
139	2021-08-17	163.44	68.89	0.79
140	2021-08-18	59.63	173.49	1.11
141	2021-08-19	144.95	138.52	0.00
142	2021-08-20	112.79	96.48	0.00
143	2021-08-21	44.96	93.58	14.22
144	2021-08-22	59.05	67.20	18.05
145	2021-08-23	92.43	68.97	0.00
146	2021-08-24	147.01	202.42	0.00
147	2021-08-25	252.86	66.19	0.00
148	2021-08-26	151.98	68.92	0.00

SI No	Time	Stack_23_Rebar_Mill-NOx_U	Stack_23_Rebar_Mill-SO2_U	Stack_23_Rebar_Mill-PM_U
149	2021-08-27	59.72	105.55	0.00
150	2021-08-28	63.21	140.72	0.29
151	2021-08-29	46.53	14.72	0.00
152	2021-08-30	88.72	13.47	3.17
153	2021-08-31	73.49	54.22	29.20

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_24_BSGDC_DRI-PM_U
Prescribed Standards	0 - 50
Maximum Data	50.02
Minimum Data	0.07
Geometric Mean	9.69
Median	6.21
Standard Deviation	11.75
Maximum Value At Time	2021-05-28
Minimum Value At Time	2021-07-18
Valid Data Points	144
Total Data Points	153
Data Availability %	94.12%

SI No	Time	Stack_24_BSGDC_DRI-PM_U
1	2021-04-01	22.40
2	2021-04-02	22.39
3	2021-04-03	22.78
4	2021-04-04	24.91
5	2021-04-05	22.37
6	2021-04-06	24.44
7	2021-04-07	24.42
8	2021-04-08	22.48
9	2021-04-09	23.51
10	2021-04-10	27.66
11	2021-04-11	22.71
12	2021-04-12	22.94
13	2021-04-13	25.82
14	2021-04-14	23.31
15	2021-04-15	12.65
16	2021-04-16	18.94
17	2021-04-17	25.59
18	2021-04-18	31.01
19	2021-04-19	37.22
20	2021-04-20	36.55
21	2021-04-21	40.35
22	2021-04-22	40.87
23	2021-04-23	41.80
24	2021-04-24	32.35

SI No	Time	Stack_24_BSGDC_DRI-PM_U
25	2021-04-25	32.17
26	2021-04-26	32.20
27	2021-04-27	32.66
28	2021-04-28	32.28
29	2021-04-29	23.74
30	2021-04-30	3.50
31	2021-05-01	6.94
32	2021-05-02	8.83
33	2021-05-03	15.08
34	2021-05-04	NA
35	2021-05-05	4.33
36	2021-05-06	6.23
37	2021-05-07	8.10
38	2021-05-08	9.87
39	2021-05-09	10.02
40	2021-05-10	10.20
41	2021-05-11	10.35
42	2021-05-12	11.38
43	2021-05-13	12.41
44	2021-05-14	11.46
45	2021-05-15	10.20
46	2021-05-16	10.43
47	2021-05-17	10.34
48	2021-05-18	9.65
49	2021-05-19	10.41
50	2021-05-20	11.36
51	2021-05-21	12.34
52	2021-05-22	12.11
53	2021-05-23	11.45
54	2021-05-24	10.98
55	2021-05-25	10.69
56	2021-05-26	10.65
57	2021-05-27	30.35
58	2021-05-28	50.02
59	2021-05-29	0.71
60	2021-05-30	0.93
61	2021-05-31	0.94
62	2021-06-01	0.94
63	2021-06-02	0.74
64	2021-06-03	1.02
65	2021-06-04	0.22

SI No	Time	Stack_24_BSGDC_DRI-PM_U
66	2021-06-05	0.22
67	2021-06-06	0.25
68	2021-06-07	0.27
69	2021-06-08	0.59
70	2021-06-09	0.21
71	2021-06-10	0.26
72	2021-06-11	NA
73	2021-06-12	0.17
74	2021-06-13	0.19
75	2021-06-14	0.21
76	2021-06-15	0.19
77	2021-06-16	0.22
78	2021-06-17	0.22
79	2021-06-18	0.29
80	2021-06-19	0.42
81	2021-06-20	0.48
82	2021-06-21	0.66
83	2021-06-22	0.68
84	2021-06-23	0.70
85	2021-06-24	0.49
86	2021-06-25	0.21
87	2021-06-26	0.16
88	2021-06-27	0.14
89	2021-06-28	0.16
90	2021-06-29	0.14
91	2021-06-30	0.14
92	2021-07-01	0.14
93	2021-07-02	0.13
94	2021-07-03	0.08
95	2021-07-04	0.09
96	2021-07-05	0.18
97	2021-07-06	0.14
98	2021-07-07	0.13
99	2021-07-08	0.14
100	2021-07-09	0.12
101	2021-07-10	0.14
102	2021-07-11	0.14
103	2021-07-12	0.14
104	2021-07-13	0.14
105	2021-07-14	0.14
106	2021-07-15	0.13
107	2021-07-16	0.11

SI No	Time	Stack_24_BSGDC_DRI-PM_U
108	2021-07-17	0.19
109	2021-07-18	0.07
110	2021-07-19	0.07
111	2021-07-20	0.10
112	2021-07-21	0.12
113	2021-07-22	0.38
114	2021-07-23	0.74
115	2021-07-24	0.77
116	2021-07-25	0.83
117	2021-07-26	0.81
118	2021-07-27	0.62
119	2021-07-28	0.66
120	2021-07-29	0.67
121	2021-07-30	0.81
122	2021-07-31	0.07
123	2021-08-01	0.08
124	2021-08-02	0.11
125	2021-08-03	0.12
126	2021-08-04	3.89
127	2021-08-05	6.19
128	2021-08-06	8.42
129	2021-08-07	5.89
130	2021-08-08	6.47
131	2021-08-09	7.90
132	2021-08-10	7.90
133	2021-08-11	7.58
134	2021-08-12	7.64
135	2021-08-13	8.76
136	2021-08-14	8.03
137	2021-08-15	7.73
138	2021-08-16	4.40
139	2021-08-17	8.50
140	2021-08-18	8.84
141	2021-08-19	9.34
142	2021-08-20	18.93
143	2021-08-21	22.21
144	2021-08-22	22.95
145	2021-08-23	24.15
146	2021-08-24	24.89
147	2021-08-25	NA
148	2021-08-26	NA

SI No	Time	Stack_24_BSGDC_DRI-PM_U
149	2021-08-27	NA
150	2021-08-28	NA
151	2021-08-29	NA
152	2021-08-30	NA
153	2021-08-31	NA

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_13_Coalgasification_unit_3-PM_U
Prescribed Standards	0 - 50
Maximum Data	19.12
Minimum Data	0.18
Geometric Mean	11.99
Median	12.22
Standard Deviation	3.97
Maximum Value At Time	2021-05-14
Minimum Value At Time	2021-06-23
Valid Data Points	119
Total Data Points	153
Data Availability %	77.78%

SI No	Time	Stack_13_Coalgasification_unit_3-PM_U
1	2021-04-01	11.64
2	2021-04-02	12.07
3	2021-04-03	12.22
4	2021-04-04	12.32
5	2021-04-05	12.47
6	2021-04-06	12.99
7	2021-04-07	13.07
8	2021-04-08	13.00
9	2021-04-09	13.08
10	2021-04-10	13.15
11	2021-04-11	13.00
12	2021-04-12	13.07
13	2021-04-13	12.96
14	2021-04-14	12.99
15	2021-04-15	13.30
16	2021-04-16	14.08
17	2021-04-17	14.31
18	2021-04-18	14.59
19	2021-04-19	14.57
20	2021-04-20	14.80
21	2021-04-21	15.08
22	2021-04-22	15.33
23	2021-04-23	15.44
24	2021-04-24	15.48

SI No	Time	Stack_13_Coalgasification_unit_3-PM_U
25	2021-04-25	15.38
26	2021-04-26	16.11
27	2021-04-27	16.43
28	2021-04-28	16.74
29	2021-04-29	16.19
30	2021-04-30	15.50
31	2021-05-01	16.10
32	2021-05-02	16.20
33	2021-05-03	16.45
34	2021-05-04	16.82
35	2021-05-05	16.79
36	2021-05-06	16.74
37	2021-05-07	17.27
38	2021-05-08	17.46
39	2021-05-09	18.03
40	2021-05-10	18.08
41	2021-05-11	18.09
42	2021-05-12	18.10
43	2021-05-13	19.05
44	2021-05-14	19.12
45	2021-05-15	NA
46	2021-05-16	NA
47	2021-05-17	NA
48	2021-05-18	NA
49	2021-05-19	NA
50	2021-05-20	NA
51	2021-05-21	NA
52	2021-05-22	NA
53	2021-05-23	NA
54	2021-05-24	NA
55	2021-05-25	NA
56	2021-05-26	NA
57	2021-05-27	NA
58	2021-05-28	NA
59	2021-05-29	NA
60	2021-05-30	NA
61	2021-05-31	NA
62	2021-06-01	NA
63	2021-06-02	NA
64	2021-06-03	NA
65	2021-06-04	NA

SI No	Time	Stack_13_Coalgasification_unit_3-PM_U
66	2021-06-05	NA
67	2021-06-06	NA
68	2021-06-07	NA
69	2021-06-08	NA
70	2021-06-09	NA
71	2021-06-10	NA
72	2021-06-11	NA
73	2021-06-12	NA
74	2021-06-13	NA
75	2021-06-14	NA
76	2021-06-15	NA
77	2021-06-16	NA
78	2021-06-17	NA
79	2021-06-18	16.14
80	2021-06-19	10.42
81	2021-06-20	0.22
82	2021-06-21	0.22
83	2021-06-22	0.20
84	2021-06-23	0.18
85	2021-06-24	3.42
86	2021-06-25	7.08
87	2021-06-26	7.77
88	2021-06-27	8.39
89	2021-06-28	7.87
90	2021-06-29	7.57
91	2021-06-30	7.42
92	2021-07-01	7.64
93	2021-07-02	8.27
94	2021-07-03	7.96
95	2021-07-04	8.01
96	2021-07-05	7.94
97	2021-07-06	7.91
98	2021-07-07	10.16
99	2021-07-08	9.14
100	2021-07-09	8.85
101	2021-07-10	8.84
102	2021-07-11	10.51
103	2021-07-12	12.96
104	2021-07-13	13.88
105	2021-07-14	12.23
106	2021-07-15	10.78
107	2021-07-16	10.30

SI No	Time	Stack_13_Coalgasification_unit_3-PM_U
108	2021-07-17	10.05
109	2021-07-18	10.34
110	2021-07-19	10.70
111	2021-07-20	12.82
112	2021-07-21	12.98
113	2021-07-22	11.53
114	2021-07-23	11.22
115	2021-07-24	11.65
116	2021-07-25	10.46
117	2021-07-26	10.20
118	2021-07-27	10.17
119	2021-07-28	10.16
120	2021-07-29	10.16
121	2021-07-30	10.16
122	2021-07-31	10.17
123	2021-08-01	6.72
124	2021-08-02	7.61
125	2021-08-03	11.17
126	2021-08-04	11.34
127	2021-08-05	11.16
128	2021-08-06	11.53
129	2021-08-07	11.37
130	2021-08-08	11.23
131	2021-08-09	11.15
132	2021-08-10	11.98
133	2021-08-11	11.75
134	2021-08-12	12.18
135	2021-08-13	13.52
136	2021-08-14	11.86
137	2021-08-15	12.17
138	2021-08-16	12.74
139	2021-08-17	16.58
140	2021-08-18	16.59
141	2021-08-19	18.00
142	2021-08-20	15.28
143	2021-08-21	13.53
144	2021-08-22	12.92
145	2021-08-23	12.18
146	2021-08-24	12.28
147	2021-08-25	12.02
148	2021-08-26	11.95

SI No	Time	Stack_13_Coalgasification_unit_3-PM_U
149	2021-08-27	12.24
150	2021-08-28	12.94
151	2021-08-29	12.93
152	2021-08-30	5.76
153	2021-08-31	0.95

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_14_Coalgasification_unit_9-PM_U
Prescribed Standards	0 - 50
Maximum Data	48.81
Minimum Data	8.47
Geometric Mean	30.57
Median	25.05
Standard Deviation	13.04
Maximum Value At Time	2021-08-31
Minimum Value At Time	2021-04-22
Valid Data Points	153
Total Data Points	153
Data Availability %	100.0%

SI No	Time	Stack_14_Coalgasification_unit_9-PM_U
1	2021-04-01	17.35
2	2021-04-02	17.13
3	2021-04-03	18.47
4	2021-04-04	19.81
5	2021-04-05	18.44
6	2021-04-06	17.75
7	2021-04-07	18.43
8	2021-04-08	19.39
9	2021-04-09	19.38
10	2021-04-10	19.84
11	2021-04-11	19.67
12	2021-04-12	19.00
13	2021-04-13	17.83
14	2021-04-14	18.22
15	2021-04-15	17.18
16	2021-04-16	17.62
17	2021-04-17	17.52
18	2021-04-18	17.93
19	2021-04-19	18.44
20	2021-04-20	18.02
21	2021-04-21	13.28
22	2021-04-22	8.47
23	2021-04-23	15.39
24	2021-04-24	12.68

SI No	Time	Stack_14_Coalgasification_unit_9-PM_U
25	2021-04-25	11.27
26	2021-04-26	14.13
27	2021-04-27	15.74
28	2021-04-28	16.61
29	2021-04-29	14.51
30	2021-04-30	19.28
31	2021-05-01	21.57
32	2021-05-02	22.53
33	2021-05-03	23.17
34	2021-05-04	18.77
35	2021-05-05	27.35
36	2021-05-06	26.62
37	2021-05-07	30.10
38	2021-05-08	31.78
39	2021-05-09	28.07
40	2021-05-10	23.26
41	2021-05-11	24.18
42	2021-05-12	27.24
43	2021-05-13	21.91
44	2021-05-14	20.49
45	2021-05-15	19.29
46	2021-05-16	18.43
47	2021-05-17	18.14
48	2021-05-18	17.76
49	2021-05-19	18.10
50	2021-05-20	19.07
51	2021-05-21	21.39
52	2021-05-22	22.53
53	2021-05-23	18.76
54	2021-05-24	16.81
55	2021-05-25	22.86
56	2021-05-26	34.91
57	2021-05-27	34.13
58	2021-05-28	25.66
59	2021-05-29	22.44
60	2021-05-30	20.44
61	2021-05-31	19.10
62	2021-06-01	19.89
63	2021-06-02	22.24
64	2021-06-03	22.19
65	2021-06-04	18.98

SI No	Time	Stack_14_Coalgasification_unit_9-PM_U
66	2021-06-05	19.09
67	2021-06-06	18.84
68	2021-06-07	18.95
69	2021-06-08	19.57
70	2021-06-09	24.42
71	2021-06-10	24.04
72	2021-06-11	23.64
73	2021-06-12	24.38
74	2021-06-13	28.28
75	2021-06-14	26.25
76	2021-06-15	24.75
77	2021-06-16	24.72
78	2021-06-17	29.18
79	2021-06-18	29.22
80	2021-06-19	29.33
81	2021-06-20	25.11
82	2021-06-21	21.86
83	2021-06-22	24.81
84	2021-06-23	27.59
85	2021-06-24	26.50
86	2021-06-25	24.65
87	2021-06-26	25.02
88	2021-06-27	25.76
89	2021-06-28	25.05
90	2021-06-29	22.88
91	2021-06-30	22.68
92	2021-07-01	22.14
93	2021-07-02	25.41
94	2021-07-03	25.57
95	2021-07-04	26.24
96	2021-07-05	25.04
97	2021-07-06	24.13
98	2021-07-07	24.69
99	2021-07-08	28.35
100	2021-07-09	28.15
101	2021-07-10	25.66
102	2021-07-11	25.86
103	2021-07-12	36.68
104	2021-07-13	43.76
105	2021-07-14	46.46
106	2021-07-15	48.14
107	2021-07-16	47.41

SI No	Time	Stack_14_Coalgasification_unit_9-PM_U
108	2021-07-17	47.29
109	2021-07-18	47.86
110	2021-07-19	47.74
111	2021-07-20	48.18
112	2021-07-21	48.00
113	2021-07-22	47.96
114	2021-07-23	48.22
115	2021-07-24	48.10
116	2021-07-25	48.09
117	2021-07-26	47.85
118	2021-07-27	48.31
119	2021-07-28	48.42
120	2021-07-29	48.44
121	2021-07-30	48.45
122	2021-07-31	48.45
123	2021-08-01	48.45
124	2021-08-02	48.45
125	2021-08-03	48.47
126	2021-08-04	48.47
127	2021-08-05	48.47
128	2021-08-06	48.47
129	2021-08-07	48.45
130	2021-08-08	48.49
131	2021-08-09	48.55
132	2021-08-10	48.49
133	2021-08-11	48.59
134	2021-08-12	48.59
135	2021-08-13	48.66
136	2021-08-14	48.66
137	2021-08-15	48.67
138	2021-08-16	48.67
139	2021-08-17	48.70
140	2021-08-18	48.68
141	2021-08-19	48.68
142	2021-08-20	48.69
143	2021-08-21	48.69
144	2021-08-22	48.68
145	2021-08-23	48.68
146	2021-08-24	48.68
147	2021-08-25	48.68
148	2021-08-26	48.69

SI No	Time	Stack_14_Coalgasification_unit_9-PM_U
149	2021-08-27	48.70
150	2021-08-28	48.72
151	2021-08-29	48.79
152	2021-08-30	48.80
153	2021-08-31	48.81

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_22_COKEoven_Battery1_2-PM_U	Stack_22_COKEoven_Battery1_2-SO2_U	Stack_22_COKEoven_Battery1_2-NOx_U
Prescribed Standards	0 - 50	0 - 800	0 - 500
Maximum Data	19.8	417.42	323.5
Minimum Data	0.07	63.35	0.27
Geometric Mean	2.79	234.75	143.72
Median	0.11	247.0	181.83
Standard Deviation	3.71	82.0	123.52
Maximum Value At Time	2021-04-29	2021-06-10	2021-05-12
Minimum Value At Time	2021-08-11	2021-08-05	2021-07-27
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_22_COKEoven_Battery1_2-PM_U	Stack_22_COKEoven_Battery1_2-SO2_U	Stack_22_COKEoven_Battery1_2-NOx_U
1	2021-04-01	6.61	160.44	247.53
2	2021-04-02	7.13	168.24	249.62
3	2021-04-03	8.02	181.16	246.80
4	2021-04-04	7.43	193.08	247.86
5	2021-04-05	6.10	184.67	250.49
6	2021-04-06	5.50	182.63	194.89
7	2021-04-07	6.05	181.80	181.94
8	2021-04-08	4.85	181.71	181.85

Sl No	Time	Stack_22_COEoven_Battery1_2-PM_U	Stack_22_COEoven_Battery1_2-SO2_U	Stack_22_COEoven_Battery1_2-NOx_U
9	2021-04-09	5.14	181.82	181.92
10	2021-04-10	5.26	181.78	181.91
11	2021-04-11	4.75	181.76	181.85
12	2021-04-12	5.09	181.77	181.86
13	2021-04-13	6.12	181.80	181.89
14	2021-04-14	4.78	181.76	181.83
15	2021-04-15	4.71	181.84	181.93
16	2021-04-16	5.40	181.90	182.02
17	2021-04-17	5.62	181.73	181.84
18	2021-04-18	5.33	181.72	181.84
19	2021-04-19	4.98	174.41	255.26
20	2021-04-20	4.90	172.37	276.33
21	2021-04-21	4.91	172.30	276.30
22	2021-04-22	7.11	172.36	276.29
23	2021-04-23	5.40	172.37	276.30
24	2021-04-24	7.12	183.07	277.99
25	2021-04-25	6.89	184.78	285.95
26	2021-04-26	7.09	180.18	288.10
27	2021-04-27	5.62	178.14	289.26
28	2021-04-28	5.37	178.13	289.25
29	2021-04-29	19.80	178.14	289.30
30	2021-04-30	16.42	178.14	289.29
31	2021-05-01	8.04	207.01	269.01
32	2021-05-02	6.13	214.74	275.85

Sl No	Time	Stack_22_COKEoven_Battery1_2-PM_U	Stack_22_COKEoven_Battery1_2-SO2_U	Stack_22_COKEoven_Battery1_2-NOx_U
33	2021-05-03	4.78	205.35	265.71
34	2021-05-04	7.33	190.53	282.54
35	2021-05-05	13.95	205.97	277.59
36	2021-05-06	10.85	206.08	284.07
37	2021-05-07	4.57	222.40	292.49
38	2021-05-08	4.42	242.27	282.83
39	2021-05-09	4.67	245.50	302.93
40	2021-05-10	5.35	256.61	321.21
41	2021-05-11	5.60	252.66	321.99
42	2021-05-12	6.88	247.00	323.50
43	2021-05-13	8.17	262.05	303.31
44	2021-05-14	6.10	233.19	291.58
45	2021-05-15	6.41	243.52	273.70
46	2021-05-16	6.61	248.54	292.48
47	2021-05-17	7.07	259.98	278.84
48	2021-05-18	7.25	271.47	273.03
49	2021-05-19	7.17	287.45	284.99
50	2021-05-20	8.37	287.49	285.01
51	2021-05-21	8.74	287.60	285.05
52	2021-05-22	7.33	287.67	285.04
53	2021-05-23	7.28	287.60	285.01
54	2021-05-24	7.74	287.48	285.03
55	2021-05-25	7.51	287.84	285.09
56	2021-05-26	6.29	288.14	285.37

Sl No	Time	Stack_22_COKEoven_Battery1_2-PM_U	Stack_22_COKEoven_Battery1_2-SO2_U	Stack_22_COKEoven_Battery1_2-NOx_U
57	2021-05-27	5.70	288.14	285.38
58	2021-05-28	9.08	287.95	285.21
59	2021-05-29	7.09	287.75	285.04
60	2021-05-30	6.07	287.72	285.04
61	2021-05-31	5.56	287.66	285.04
62	2021-06-01	0.09	262.13	227.90
63	2021-06-02	0.09	263.55	232.15
64	2021-06-03	0.09	240.72	239.27
65	2021-06-04	0.09	228.91	242.85
66	2021-06-05	0.09	228.75	242.67
67	2021-06-06	0.09	228.75	242.75
68	2021-06-07	0.09	217.25	253.32
69	2021-06-08	0.09	211.46	250.95
70	2021-06-09	0.09	338.67	260.38
71	2021-06-10	0.09	417.42	294.65
72	2021-06-11	0.09	320.54	284.89
73	2021-06-12	0.09	327.71	228.55
74	2021-06-13	0.11	339.25	0.29
75	2021-06-14	0.11	339.26	0.29
76	2021-06-15	0.11	339.19	0.29
77	2021-06-16	0.10	339.21	0.28
78	2021-06-17	0.10	340.00	0.28
79	2021-06-18	0.10	340.92	0.28
80	2021-06-19	0.10	340.92	0.28

Sl No	Time	Stack_22_COEoven_Battery1_2-PM_U	Stack_22_COEoven_Battery1_2-SO2_U	Stack_22_COEoven_Battery1_2-NOx_U
81	2021-06-20	0.10	340.83	0.28
82	2021-06-21	0.10	340.89	0.29
83	2021-06-22	0.10	340.93	0.28
84	2021-06-23	0.10	340.94	0.28
85	2021-06-24	0.10	340.94	0.29
86	2021-06-25	0.10	340.90	0.29
87	2021-06-26	0.10	340.97	0.30
88	2021-06-27	0.11	340.92	0.30
89	2021-06-28	0.10	340.82	0.29
90	2021-06-29	0.10	340.90	0.28
91	2021-06-30	0.10	340.95	0.28
92	2021-07-01	0.10	340.99	0.28
93	2021-07-02	0.10	341.02	0.29
94	2021-07-03	0.11	340.78	0.29
95	2021-07-04	0.10	340.94	0.29
96	2021-07-05	0.10	340.95	0.29
97	2021-07-06	0.10	340.93	0.29
98	2021-07-07	0.10	340.93	0.28
99	2021-07-08	0.10	340.98	0.29
100	2021-07-09	0.11	306.94	0.30
101	2021-07-10	0.11	273.58	0.31
102	2021-07-11	0.11	273.69	0.31
103	2021-07-12	0.11	273.81	0.31
104	2021-07-13	0.11	273.84	0.31

SI No	Time	Stack_22_COKEoven_Battery1_2-PM_U	Stack_22_COKEoven_Battery1_2-SO2_U	Stack_22_COKEoven_Battery1_2-NOx_U
105	2021-07-14	0.11	273.79	0.30
106	2021-07-15	0.11	273.62	0.31
107	2021-07-16	0.11	273.65	0.30
108	2021-07-17	0.11	273.61	0.44
109	2021-07-18	0.11	273.56	0.31
110	2021-07-19	0.11	273.64	0.30
111	2021-07-20	0.11	273.60	0.31
112	2021-07-21	0.11	273.71	0.31
113	2021-07-22	0.11	273.68	0.30
114	2021-07-23	0.11	273.70	0.30
115	2021-07-24	0.11	273.65	0.31
116	2021-07-25	0.11	273.67	0.31
117	2021-07-26	0.10	294.18	0.29
118	2021-07-27	0.10	308.34	0.27
119	2021-07-28	0.10	308.34	0.27
120	2021-07-29	0.10	308.35	0.27
121	2021-07-30	0.10	308.32	0.27
122	2021-07-31	0.10	308.33	0.27
123	2021-08-01	0.10	308.33	0.27
124	2021-08-02	0.10	308.33	0.27
125	2021-08-03	0.10	238.76	0.30
126	2021-08-04	0.10	66.10	0.35
127	2021-08-05	0.10	63.35	0.34
128	2021-08-06	0.10	67.96	0.34

Sl No	Time	Stack_22_COEoven_Battery1_2-PM_U	Stack_22_COEoven_Battery1_2-SO2_U	Stack_22_COEoven_Battery1_2-NOx_U
129	2021-08-07	0.10	68.66	0.33
130	2021-08-08	0.12	76.55	3.34
131	2021-08-09	0.10	83.84	0.34
132	2021-08-10	0.09	89.71	4.80
133	2021-08-11	0.07	86.32	101.10
134	2021-08-12	0.09	92.60	204.23
135	2021-08-13	0.09	89.78	199.85
136	2021-08-14	0.09	95.60	195.67
137	2021-08-15	0.09	103.33	206.33
138	2021-08-16	0.09	123.86	150.93
139	2021-08-17	0.09	131.30	133.25
140	2021-08-18	0.09	130.75	133.17
141	2021-08-19	0.09	130.59	133.15
142	2021-08-20	0.09	130.51	133.03
143	2021-08-21	0.09	130.44	132.91
144	2021-08-22	0.09	130.33	132.90
145	2021-08-23	0.09	130.27	132.89
146	2021-08-24	0.09	130.57	133.06
147	2021-08-25	0.09	130.55	133.09
148	2021-08-26	0.09	130.60	133.17
149	2021-08-27	0.09	130.55	133.15
150	2021-08-28	0.09	130.58	133.13
151	2021-08-29	0.09	130.61	133.19
152	2021-08-30	0.09	130.61	133.19

Sl No	Time	Stack_22_COKEoven_Battery1_2-PM_U	Stack_22_COKEoven_Battery1_2-SO2_U	Stack_22_COKEoven_Battery1_2-NOx_U
153	2021-08-31	0.09	130.61	133.23

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
Prescribed Standards	0 - 50	0 - 800	0 - 500
Maximum Data	20.94	394.25	0.0
Minimum Data	0.03	36.36	0.0
Geometric Mean	7.88	201.97	0.0
Median	0.06	205.27	0.0
Standard Deviation	9.6	114.37	0.0
Maximum Value At Time	2021-05-04	2021-08-18	2021-08-13
Minimum Value At Time	2021-07-14	2021-08-14	2021-08-13
Valid Data Points	152	19	19
Total Data Points	153	153	153
Data Availability %	99.35%	12.42%	12.42%

SI No	Time	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
1	2021-04-01	19.36	NA	NA
2	2021-04-02	19.67	NA	NA
3	2021-04-03	19.72	NA	NA
4	2021-04-04	19.96	NA	NA
5	2021-04-05	19.65	NA	NA
6	2021-04-06	20.36	NA	NA
7	2021-04-07	20.81	NA	NA
8	2021-04-08	20.45	NA	NA
9	2021-04-09	19.99	NA	NA

SI No	Time	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
10	2021-04-10	19.55	NA	NA
11	2021-04-11	19.56	NA	NA
12	2021-04-12	19.65	NA	NA
13	2021-04-13	20.51	NA	NA
14	2021-04-14	20.45	NA	NA
15	2021-04-15	20.46	NA	NA
16	2021-04-16	19.95	NA	NA
17	2021-04-17	20.33	NA	NA
18	2021-04-18	19.84	NA	NA
19	2021-04-19	19.90	NA	NA
20	2021-04-20	20.06	NA	NA
21	2021-04-21	20.29	NA	NA
22	2021-04-22	20.43	NA	NA
23	2021-04-23	19.25	NA	NA
24	2021-04-24	19.39	NA	NA
25	2021-04-25	19.77	NA	NA
26	2021-04-26	20.16	NA	NA
27	2021-04-27	20.55	NA	NA
28	2021-04-28	20.68	NA	NA
29	2021-04-29	20.28	NA	NA
30	2021-04-30	19.59	NA	NA
31	2021-05-01	19.70	NA	NA
32	2021-05-02	19.58	NA	NA
33	2021-05-03	20.69	NA	NA
34	2021-05-04	20.94	NA	NA

SI No	Time	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
35	2021-05-05	20.56	NA	NA
36	2021-05-06	20.75	NA	NA
37	2021-05-07	20.41	NA	NA
38	2021-05-08	19.72	NA	NA
39	2021-05-09	20.24	NA	NA
40	2021-05-10	19.29	NA	NA
41	2021-05-11	19.12	NA	NA
42	2021-05-12	19.20	NA	NA
43	2021-05-13	18.64	NA	NA
44	2021-05-14	18.67	NA	NA
45	2021-05-15	18.52	NA	NA
46	2021-05-16	18.25	NA	NA
47	2021-05-17	18.62	NA	NA
48	2021-05-18	18.22	NA	NA
49	2021-05-19	18.57	NA	NA
50	2021-05-20	18.93	NA	NA
51	2021-05-21	18.95	NA	NA
52	2021-05-22	18.56	NA	NA
53	2021-05-23	18.30	NA	NA
54	2021-05-24	18.37	NA	NA
55	2021-05-25	18.51	NA	NA
56	2021-05-26	18.25	NA	NA
57	2021-05-27	17.91	NA	NA
58	2021-05-28	20.06	NA	NA
59	2021-05-29	18.16	NA	NA

SI No	Time	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
60	2021-05-30	18.70	NA	NA
61	2021-05-31	17.88	NA	NA
62	2021-06-01	0.06	NA	NA
63	2021-06-02	0.06	NA	NA
64	2021-06-03	0.06	NA	NA
65	2021-06-04	0.06	NA	NA
66	2021-06-05	0.06	NA	NA
67	2021-06-06	0.07	NA	NA
68	2021-06-07	0.07	NA	NA
69	2021-06-08	0.06	NA	NA
70	2021-06-09	0.06	NA	NA
71	2021-06-10	0.06	NA	NA
72	2021-06-11	0.07	NA	NA
73	2021-06-12	0.06	NA	NA
74	2021-06-13	0.06	NA	NA
75	2021-06-14	0.06	NA	NA
76	2021-06-15	0.06	NA	NA
77	2021-06-16	0.06	NA	NA
78	2021-06-17	0.06	NA	NA
79	2021-06-18	0.06	NA	NA
80	2021-06-19	0.06	NA	NA
81	2021-06-20	0.06	NA	NA
82	2021-06-21	0.06	NA	NA
83	2021-06-22	0.06	NA	NA
84	2021-06-23	0.06	NA	NA

SI No	Time	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
85	2021-06-24	0.06	NA	NA
86	2021-06-25	0.06	NA	NA
87	2021-06-26	0.06	NA	NA
88	2021-06-27	0.06	NA	NA
89	2021-06-28	0.06	NA	NA
90	2021-06-29	0.06	NA	NA
91	2021-06-30	0.07	NA	NA
92	2021-07-01	0.06	NA	NA
93	2021-07-02	0.06	NA	NA
94	2021-07-03	0.06	NA	NA
95	2021-07-04	0.06	NA	NA
96	2021-07-05	0.06	NA	NA
97	2021-07-06	0.07	NA	NA
98	2021-07-07	0.07	NA	NA
99	2021-07-08	0.06	NA	NA
100	2021-07-09	0.06	NA	NA
101	2021-07-10	0.06	NA	NA
102	2021-07-11	0.06	NA	NA
103	2021-07-12	0.06	NA	NA
104	2021-07-13	NA	NA	NA
105	2021-07-14	0.03	NA	NA
106	2021-07-15	0.04	NA	NA
107	2021-07-16	0.03	NA	NA
108	2021-07-17	0.03	NA	NA
109	2021-07-18	0.03	NA	NA

SI No	Time	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
110	2021-07-19	0.03	NA	NA
111	2021-07-20	0.04	NA	NA
112	2021-07-21	0.03	NA	NA
113	2021-07-22	0.04	NA	NA
114	2021-07-23	0.04	NA	NA
115	2021-07-24	0.04	NA	NA
116	2021-07-25	0.04	NA	NA
117	2021-07-26	0.05	NA	NA
118	2021-07-27	0.05	NA	NA
119	2021-07-28	0.05	NA	NA
120	2021-07-29	0.05	NA	NA
121	2021-07-30	0.05	NA	NA
122	2021-07-31	0.05	NA	NA
123	2021-08-01	0.06	NA	NA
124	2021-08-02	0.06	NA	NA
125	2021-08-03	0.06	NA	NA
126	2021-08-04	0.06	NA	NA
127	2021-08-05	0.06	NA	NA
128	2021-08-06	0.06	NA	NA
129	2021-08-07	0.06	NA	NA
130	2021-08-08	0.06	NA	NA
131	2021-08-09	0.06	NA	NA
132	2021-08-10	0.06	NA	NA
133	2021-08-11	0.06	NA	NA
134	2021-08-12	0.06	NA	NA

SI No	Time	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
135	2021-08-13	0.05	52.31	0.0
136	2021-08-14	0.05	36.36	0.0
137	2021-08-15	0.05	49.57	0.0
138	2021-08-16	0.06	44.03	0.0
139	2021-08-17	0.06	150.06	0.0
140	2021-08-18	0.05	394.25	0.0
141	2021-08-19	0.05	367.15	0.0
142	2021-08-20	0.05	391.97	0.0
143	2021-08-21	0.06	327.61	0.0
144	2021-08-22	0.06	269.13	0.0
145	2021-08-23	0.06	217.90	0.0
146	2021-08-24	0.06	213.00	0.0
147	2021-08-25	0.05	129.58	0.0
148	2021-08-26	0.06	146.89	0.0
149	2021-08-27	0.06	188.90	0.0
150	2021-08-28	0.05	229.24	0.0
151	2021-08-29	0.05	205.27	0.0
152	2021-08-30	0.05	165.64	0.0
153	2021-08-31	0.05	258.51	0.0

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Description	Stack_15_CoalWashery_DSM-PM_U
Prescribed Standards	0 - 100
Maximum Data	70.51
Minimum Data	0.04
Geometric Mean	37.11
Median	41.97
Standard Deviation	17.49
Maximum Value At Time	2021-08-27
Minimum Value At Time	2021-07-26
Valid Data Points	153
Total Data Points	153
Data Availability %	100.0%

SI No	Time	Stack_15_CoalWashery_DSM-PM_U
1	2021-04-01	29.64
2	2021-04-02	35.44
3	2021-04-03	34.10
4	2021-04-04	42.87
5	2021-04-05	41.97
6	2021-04-06	44.12
7	2021-04-07	17.98
8	2021-04-08	3.40
9	2021-04-09	2.92
10	2021-04-10	22.26
11	2021-04-11	6.77
12	2021-04-12	11.74
13	2021-04-13	21.22
14	2021-04-14	9.49
15	2021-04-15	1.69
16	2021-04-16	4.69
17	2021-04-17	31.02
18	2021-04-18	48.18
19	2021-04-19	47.70
20	2021-04-20	43.57
21	2021-04-21	39.39
22	2021-04-22	54.51
23	2021-04-23	50.46
24	2021-04-24	33.08

SI No	Time	Stack_15_CoalWashery_DSM-PM_U
25	2021-04-25	43.42
26	2021-04-26	47.99
27	2021-04-27	31.17
28	2021-04-28	24.64
29	2021-04-29	44.23
30	2021-04-30	49.32
31	2021-05-01	46.90
32	2021-05-02	51.99
33	2021-05-03	44.09
34	2021-05-04	37.70
35	2021-05-05	39.64
36	2021-05-06	29.87
37	2021-05-07	37.27
38	2021-05-08	27.18
39	2021-05-09	46.62
40	2021-05-10	40.60
41	2021-05-11	36.66
42	2021-05-12	45.27
43	2021-05-13	50.20
44	2021-05-14	51.03
45	2021-05-15	46.98
46	2021-05-16	49.32
47	2021-05-17	46.44
48	2021-05-18	57.13
49	2021-05-19	46.36
50	2021-05-20	58.94
51	2021-05-21	45.53
52	2021-05-22	47.75
53	2021-05-23	51.75
54	2021-05-24	48.98
55	2021-05-25	57.84
56	2021-05-26	37.04
57	2021-05-27	29.45
58	2021-05-28	25.55
59	2021-05-29	10.99
60	2021-05-30	3.86
61	2021-05-31	3.80
62	2021-06-01	3.76
63	2021-06-02	9.19
64	2021-06-03	32.16
65	2021-06-04	29.26

SI No	Time	Stack_15_CoalWashery_DSM-PM_U
66	2021-06-05	24.73
67	2021-06-06	25.95
68	2021-06-07	53.39
69	2021-06-08	47.84
70	2021-06-09	44.14
71	2021-06-10	45.00
72	2021-06-11	39.72
73	2021-06-12	49.54
74	2021-06-13	43.16
75	2021-06-14	50.14
76	2021-06-15	32.82
77	2021-06-16	48.42
78	2021-06-17	56.39
79	2021-06-18	55.25
80	2021-06-19	55.95
81	2021-06-20	45.45
82	2021-06-21	44.98
83	2021-06-22	37.84
84	2021-06-23	42.12
85	2021-06-24	30.81
86	2021-06-25	34.70
87	2021-06-26	36.08
88	2021-06-27	35.83
89	2021-06-28	43.58
90	2021-06-29	48.42
91	2021-06-30	30.79
92	2021-07-01	51.67
93	2021-07-02	45.71
94	2021-07-03	36.90
95	2021-07-04	46.41
96	2021-07-05	60.78
97	2021-07-06	40.89
98	2021-07-07	36.95
99	2021-07-08	57.61
100	2021-07-09	38.43
101	2021-07-10	46.40
102	2021-07-11	43.42
103	2021-07-12	34.66
104	2021-07-13	31.68
105	2021-07-14	38.49
106	2021-07-15	36.65
107	2021-07-16	29.21

SI No	Time	Stack_15_CoalWashery_DSM-PM_U
108	2021-07-17	43.41
109	2021-07-18	35.85
110	2021-07-19	48.09
111	2021-07-20	42.81
112	2021-07-21	26.62
113	2021-07-22	18.55
114	2021-07-23	46.47
115	2021-07-24	42.43
116	2021-07-25	39.06
117	2021-07-26	0.04
118	2021-07-27	0.04
119	2021-07-28	0.04
120	2021-07-29	0.04
121	2021-07-30	0.04
122	2021-07-31	0.04
123	2021-08-01	50.92
124	2021-08-02	48.56
125	2021-08-03	47.77
126	2021-08-04	55.84
127	2021-08-05	41.81
128	2021-08-06	37.75
129	2021-08-07	36.20
130	2021-08-08	57.18
131	2021-08-09	56.92
132	2021-08-10	53.21
133	2021-08-11	53.26
134	2021-08-12	51.28
135	2021-08-13	47.19
136	2021-08-14	42.30
137	2021-08-15	39.16
138	2021-08-16	55.72
139	2021-08-17	65.24
140	2021-08-18	54.08
141	2021-08-19	60.49
142	2021-08-20	15.15
143	2021-08-21	0.04
144	2021-08-22	0.04
145	2021-08-23	0.04
146	2021-08-24	0.04
147	2021-08-25	0.04
148	2021-08-26	30.53

SI No	Time	Stack_15_CoalWashery_DSM-PM_U
149	2021-08-27	70.51
150	2021-08-28	64.94
151	2021-08-29	68.33
152	2021-08-30	63.81
153	2021-08-31	40.81

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Description	Stack_20_Coal_WasherySurge_Bin-PM_U
Prescribed Standards	0 - 100
Maximum Data	37.84
Minimum Data	0.0
Geometric Mean	4.22
Median	0.0
Standard Deviation	9.06
Maximum Value At Time	2021-08-17
Minimum Value At Time	2021-04-01
Valid Data Points	153
Total Data Points	153
Data Availability %	100.0%

SI No	Time	Stack_20_Coal_WasherySurge_Bin-PM_U
1	2021-04-01	0.00
2	2021-04-02	0.00
3	2021-04-03	0.00
4	2021-04-04	0.00
5	2021-04-05	0.00
6	2021-04-06	0.00
7	2021-04-07	0.00
8	2021-04-08	0.00
9	2021-04-09	0.00
10	2021-04-10	0.00
11	2021-04-11	0.00
12	2021-04-12	0.00
13	2021-04-13	0.00
14	2021-04-14	0.00
15	2021-04-15	0.00
16	2021-04-16	0.00
17	2021-04-17	0.00
18	2021-04-18	0.00
19	2021-04-19	0.00
20	2021-04-20	0.00
21	2021-04-21	0.00
22	2021-04-22	0.00
23	2021-04-23	0.00
24	2021-04-24	0.00

SI No	Time	Stack_20_Coal_WasherySurge_Bin-PM_U
25	2021-04-25	0.00
26	2021-04-26	0.00
27	2021-04-27	0.00
28	2021-04-28	0.00
29	2021-04-29	0.00
30	2021-04-30	0.00
31	2021-05-01	0.00
32	2021-05-02	0.00
33	2021-05-03	0.00
34	2021-05-04	0.00
35	2021-05-05	0.00
36	2021-05-06	0.00
37	2021-05-07	0.00
38	2021-05-08	0.00
39	2021-05-09	0.00
40	2021-05-10	0.00
41	2021-05-11	0.00
42	2021-05-12	0.00
43	2021-05-13	0.00
44	2021-05-14	0.00
45	2021-05-15	0.00
46	2021-05-16	0.00
47	2021-05-17	0.00
48	2021-05-18	0.00
49	2021-05-19	0.00
50	2021-05-20	0.00
51	2021-05-21	0.00
52	2021-05-22	0.00
53	2021-05-23	0.00
54	2021-05-24	0.00
55	2021-05-25	0.00
56	2021-05-26	0.00
57	2021-05-27	0.00
58	2021-05-28	0.00
59	2021-05-29	0.00
60	2021-05-30	0.00
61	2021-05-31	0.00
62	2021-06-01	0.00
63	2021-06-02	0.00
64	2021-06-03	0.00
65	2021-06-04	0.00

SI No	Time	Stack_20_Coal_WasherySurge_Bin-PM_U
66	2021-06-05	0.00
67	2021-06-06	0.00
68	2021-06-07	0.00
69	2021-06-08	0.00
70	2021-06-09	0.00
71	2021-06-10	0.00
72	2021-06-11	0.00
73	2021-06-12	0.00
74	2021-06-13	0.00
75	2021-06-14	0.00
76	2021-06-15	0.00
77	2021-06-16	0.00
78	2021-06-17	0.00
79	2021-06-18	0.00
80	2021-06-19	0.00
81	2021-06-20	0.00
82	2021-06-21	0.00
83	2021-06-22	0.00
84	2021-06-23	0.00
85	2021-06-24	0.00
86	2021-06-25	0.00
87	2021-06-26	0.00
88	2021-06-27	0.00
89	2021-06-28	0.00
90	2021-06-29	0.00
91	2021-06-30	0.00
92	2021-07-01	0.00
93	2021-07-02	0.00
94	2021-07-03	0.00
95	2021-07-04	0.00
96	2021-07-05	0.00
97	2021-07-06	0.00
98	2021-07-07	0.00
99	2021-07-08	0.00
100	2021-07-09	0.00
101	2021-07-10	0.00
102	2021-07-11	0.00
103	2021-07-12	0.00
104	2021-07-13	0.00
105	2021-07-14	0.00
106	2021-07-15	0.00
107	2021-07-16	0.00

SI No	Time	Stack_20_Coal_WasherySurge_Bin-PM_U
108	2021-07-17	0.00
109	2021-07-18	0.00
110	2021-07-19	0.00
111	2021-07-20	0.00
112	2021-07-21	0.00
113	2021-07-22	0.00
114	2021-07-23	3.06
115	2021-07-24	20.97
116	2021-07-25	15.35
117	2021-07-26	0.02
118	2021-07-27	0.02
119	2021-07-28	0.02
120	2021-07-29	0.03
121	2021-07-30	5.26
122	2021-07-31	7.08
123	2021-08-01	18.37
124	2021-08-02	22.88
125	2021-08-03	19.41
126	2021-08-04	23.91
127	2021-08-05	19.20
128	2021-08-06	15.76
129	2021-08-07	16.08
130	2021-08-08	28.10
131	2021-08-09	23.30
132	2021-08-10	26.08
133	2021-08-11	25.64
134	2021-08-12	26.56
135	2021-08-13	26.43
136	2021-08-14	23.91
137	2021-08-15	19.73
138	2021-08-16	27.23
139	2021-08-17	37.84
140	2021-08-18	29.08
141	2021-08-19	31.73
142	2021-08-20	9.58
143	2021-08-21	1.48
144	2021-08-22	0.63
145	2021-08-23	0.03
146	2021-08-24	0.03
147	2021-08-25	0.02
148	2021-08-26	10.02

SI No	Time	Stack_20_Coal_WasherySurge_Bin-PM_U
149	2021-08-27	23.41
150	2021-08-28	22.76
151	2021-08-29	22.98
152	2021-08-30	23.62
153	2021-08-31	18.40

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Site Name: M/s. Jindal Steel & Power Ltd.

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Description	Stack_17_DRI_CO2_Removal-SO2_U	Stack_17_DRI_CO2_Removal-NOx_U
Prescribed Standards	0 -	0 -
Maximum Data	7.46	27.75
Minimum Data	4.7	18.98
Geometric Mean	5.61	22.17
Median	5.41	21.46
Standard Deviation	0.58	1.98
Maximum Value At Time	2021-07-29	2021-07-30
Minimum Value At Time	2021-04-04	2021-04-04
Valid Data Points	153	153
Total Data Points	153	153
Data Availability %	100.0%	100.0%

SI No	Time	Stack_17_DRI_CO2_Removal-SO2_U	Stack_17_DRI_CO2_Removal-NOx_U
1	2021-04-01	4.96	20.03
2	2021-04-02	4.90	19.90
3	2021-04-03	4.79	19.46
4	2021-04-04	4.70	18.98
5	2021-04-05	5.11	20.78
6	2021-04-06	5.32	21.02
7	2021-04-07	5.41	20.54
8	2021-04-08	5.22	20.08
9	2021-04-09	5.35	20.80
10	2021-04-10	5.19	20.26
11	2021-04-11	5.11	20.03
12	2021-04-12	5.32	20.75
13	2021-04-13	5.46	21.22
14	2021-04-14	5.34	20.80
15	2021-04-15	5.32	20.67
16	2021-04-16	5.23	20.71
17	2021-04-17	4.93	20.51
18	2021-04-18	4.83	19.88
19	2021-04-19	5.15	20.57
20	2021-04-20	5.12	20.82
21	2021-04-21	5.44	21.80
22	2021-04-22	5.74	22.98
23	2021-04-23	6.25	24.48
24	2021-04-24	5.95	23.72

SI No	Time	Stack_17_DRI_CO2_Removal-SO2_U	Stack_17_DRI_CO2_Removal-NOx_U
25	2021-04-25	5.75	23.19
26	2021-04-26	5.84	23.47
27	2021-04-27	5.61	22.05
28	2021-04-28	5.12	20.68
29	2021-04-29	4.99	20.22
30	2021-04-30	5.01	20.13
31	2021-05-01	5.08	20.51
32	2021-05-02	4.92	20.01
33	2021-05-03	5.04	20.33
34	2021-05-04	5.03	20.22
35	2021-05-05	5.12	20.52
36	2021-05-06	5.09	20.24
37	2021-05-07	5.07	20.44
38	2021-05-08	5.22	20.52
39	2021-05-09	5.25	20.75
40	2021-05-10	5.23	20.50
41	2021-05-11	5.08	19.95
42	2021-05-12	5.06	20.10
43	2021-05-13	5.16	20.50
44	2021-05-14	5.31	21.26
45	2021-05-15	5.00	20.29
46	2021-05-16	4.91	19.42
47	2021-05-17	5.02	19.88
48	2021-05-18	5.17	20.58
49	2021-05-19	5.27	20.87
50	2021-05-20	5.41	21.41
51	2021-05-21	5.55	21.63
52	2021-05-22	5.55	21.56
53	2021-05-23	5.60	22.04
54	2021-05-24	5.37	21.46
55	2021-05-25	5.48	21.27
56	2021-05-26	5.73	22.02
57	2021-05-27	6.24	24.57
58	2021-05-28	6.61	24.83
59	2021-05-29	6.66	26.22
60	2021-05-30	6.34	25.11
61	2021-05-31	5.93	23.62
62	2021-06-01	5.93	23.60
63	2021-06-02	6.01	23.83
64	2021-06-03	5.87	23.38
65	2021-06-04	5.32	21.46

SI No	Time	Stack_17_DRI_CO2_Removal-SO2_U	Stack_17_DRI_CO2_Removal-NOx_U
66	2021-06-05	5.02	20.45
67	2021-06-06	5.03	20.44
68	2021-06-07	5.04	20.41
69	2021-06-08	4.98	19.99
70	2021-06-09	5.20	20.86
71	2021-06-10	5.26	20.92
72	2021-06-11	5.10	20.61
73	2021-06-12	4.90	19.99
74	2021-06-13	5.29	21.00
75	2021-06-14	5.28	21.20
76	2021-06-15	5.13	20.71
77	2021-06-16	5.14	20.43
78	2021-06-17	5.53	21.58
79	2021-06-18	5.60	21.80
80	2021-06-19	5.62	22.31
81	2021-06-20	5.67	22.26
82	2021-06-21	5.61	22.00
83	2021-06-22	5.55	21.66
84	2021-06-23	5.70	22.28
85	2021-06-24	5.65	22.41
86	2021-06-25	5.59	22.26
87	2021-06-26	5.52	22.03
88	2021-06-27	5.45	21.84
89	2021-06-28	5.45	21.79
90	2021-06-29	5.31	21.26
91	2021-06-30	5.22	20.97
92	2021-07-01	5.15	20.55
93	2021-07-02	5.09	20.45
94	2021-07-03	5.12	20.60
95	2021-07-04	5.15	20.65
96	2021-07-05	5.09	20.55
97	2021-07-06	5.21	20.92
98	2021-07-07	5.38	21.46
99	2021-07-08	5.38	21.45
100	2021-07-09	5.41	21.79
101	2021-07-10	5.73	22.27
102	2021-07-11	5.52	21.94
103	2021-07-12	5.51	22.03
104	2021-07-13	5.34	21.37
105	2021-07-14	5.58	22.03
106	2021-07-15	5.55	21.71
107	2021-07-16	5.32	21.39

SI No	Time	Stack_17_DRI_CO2_Removal-SO2_U	Stack_17_DRI_CO2_Removal-NOx_U
108	2021-07-17	5.20	20.74
109	2021-07-18	5.27	21.38
110	2021-07-19	5.33	21.38
111	2021-07-20	5.32	20.79
112	2021-07-21	5.33	20.91
113	2021-07-22	5.31	21.11
114	2021-07-23	5.32	21.34
115	2021-07-24	5.41	21.31
116	2021-07-25	5.37	21.15
117	2021-07-26	6.31	23.59
118	2021-07-27	6.89	25.55
119	2021-07-28	7.33	27.03
120	2021-07-29	7.46	27.47
121	2021-07-30	7.27	27.75
122	2021-07-31	7.19	27.39
123	2021-08-01	6.86	26.50
124	2021-08-02	6.35	24.89
125	2021-08-03	6.13	24.35
126	2021-08-04	6.12	24.19
127	2021-08-05	6.31	24.50
128	2021-08-06	6.06	23.75
129	2021-08-07	6.03	23.80
130	2021-08-08	6.11	24.00
131	2021-08-09	6.12	24.12
132	2021-08-10	6.05	23.63
133	2021-08-11	6.22	24.01
134	2021-08-12	6.17	24.04
135	2021-08-13	6.53	25.48
136	2021-08-14	6.47	25.43
137	2021-08-15	6.57	25.63
138	2021-08-16	6.46	25.38
139	2021-08-17	6.38	24.68
140	2021-08-18	6.53	24.99
141	2021-08-19	6.41	24.82
142	2021-08-20	6.31	24.78
143	2021-08-21	6.20	24.34
144	2021-08-22	5.94	23.39
145	2021-08-23	6.06	23.92
146	2021-08-24	6.03	23.75
147	2021-08-25	6.15	24.37
148	2021-08-26	6.24	24.36

SI No	Time	Stack_17_DRI_CO2_Removal-SO2_U	Stack_17_DRI_CO2_Removal-NOx_U
149	2021-08-27	6.07	23.86
150	2021-08-28	6.19	24.25
151	2021-08-29	6.36	24.89
152	2021-08-30	6.69	26.26
153	2021-08-31	6.83	26.67

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_18_DRI_DE5-PM_U
Prescribed Standards	0 - 50
Maximum Data	8.66
Minimum Data	0.25
Geometric Mean	1.0
Median	0.5
Standard Deviation	1.47
Maximum Value At Time	2021-08-31
Minimum Value At Time	2021-05-24
Valid Data Points	153
Total Data Points	153
Data Availability %	100.0%

SI No	Time	Stack_18_DRI_DE5-PM_U
1	2021-04-01	0.72
2	2021-04-02	0.63
3	2021-04-03	0.61
4	2021-04-04	0.63
5	2021-04-05	0.60
6	2021-04-06	0.60
7	2021-04-07	0.58
8	2021-04-08	0.58
9	2021-04-09	0.58
10	2021-04-10	0.59
11	2021-04-11	0.60
12	2021-04-12	0.60
13	2021-04-13	0.58
14	2021-04-14	0.54
15	2021-04-15	0.53
16	2021-04-16	0.51
17	2021-04-17	0.53
18	2021-04-18	0.50
19	2021-04-19	0.49
20	2021-04-20	0.48
21	2021-04-21	0.46
22	2021-04-22	0.43
23	2021-04-23	0.43
24	2021-04-24	0.45

SI No	Time	Stack_18_DRI_DE5-PM_U
25	2021-04-25	0.46
26	2021-04-26	0.44
27	2021-04-27	0.44
28	2021-04-28	0.44
29	2021-04-29	0.42
30	2021-04-30	0.41
31	2021-05-01	0.41
32	2021-05-02	0.41
33	2021-05-03	0.41
34	2021-05-04	0.39
35	2021-05-05	0.39
36	2021-05-06	0.39
37	2021-05-07	0.36
38	2021-05-08	0.35
39	2021-05-09	0.33
40	2021-05-10	0.33
41	2021-05-11	0.44
42	2021-05-12	0.38
43	2021-05-13	0.32
44	2021-05-14	0.32
45	2021-05-15	0.32
46	2021-05-16	0.32
47	2021-05-17	0.32
48	2021-05-18	0.32
49	2021-05-19	0.32
50	2021-05-20	0.30
51	2021-05-21	0.28
52	2021-05-22	0.27
53	2021-05-23	0.28
54	2021-05-24	0.25
55	2021-05-25	0.28
56	2021-05-26	0.34
57	2021-05-27	0.32
58	2021-05-28	0.32
59	2021-05-29	0.32
60	2021-05-30	0.32
61	2021-05-31	0.32
62	2021-06-01	0.32
63	2021-06-02	0.31
64	2021-06-03	0.31
65	2021-06-04	0.32

SI No	Time	Stack_18_DRI_DE5-PM_U
66	2021-06-05	0.32
67	2021-06-06	0.31
68	2021-06-07	0.31
69	2021-06-08	0.32
70	2021-06-09	0.83
71	2021-06-10	0.62
72	2021-06-11	0.62
73	2021-06-12	0.61
74	2021-06-13	0.61
75	2021-06-14	0.61
76	2021-06-15	0.60
77	2021-06-16	0.59
78	2021-06-17	0.55
79	2021-06-18	0.57
80	2021-06-19	0.55
81	2021-06-20	0.57
82	2021-06-21	0.57
83	2021-06-22	0.54
84	2021-06-23	0.50
85	2021-06-24	0.52
86	2021-06-25	0.51
87	2021-06-26	0.52
88	2021-06-27	0.51
89	2021-06-28	0.51
90	2021-06-29	0.51
91	2021-06-30	0.50
92	2021-07-01	0.50
93	2021-07-02	0.48
94	2021-07-03	0.48
95	2021-07-04	0.48
96	2021-07-05	0.50
97	2021-07-06	0.50
98	2021-07-07	0.47
99	2021-07-08	0.46
100	2021-07-09	0.47
101	2021-07-10	0.46
102	2021-07-11	0.47
103	2021-07-12	0.52
104	2021-07-13	0.48
105	2021-07-14	0.42
106	2021-07-15	0.39
107	2021-07-16	0.41

SI No	Time	Stack_18_DRI_DE5-PM_U
108	2021-07-17	0.41
109	2021-07-18	0.40
110	2021-07-19	0.40
111	2021-07-20	0.41
112	2021-07-21	0.41
113	2021-07-22	0.41
114	2021-07-23	0.41
115	2021-07-24	0.41
116	2021-07-25	0.41
117	2021-07-26	0.41
118	2021-07-27	0.39
119	2021-07-28	3.92
120	2021-07-29	6.84
121	2021-07-30	5.97
122	2021-07-31	5.13
123	2021-08-01	4.20
124	2021-08-02	3.69
125	2021-08-03	3.31
126	2021-08-04	3.03
127	2021-08-05	2.92
128	2021-08-06	2.83
129	2021-08-07	2.78
130	2021-08-08	2.72
131	2021-08-09	2.53
132	2021-08-10	2.47
133	2021-08-11	2.43
134	2021-08-12	1.95
135	2021-08-13	0.74
136	2021-08-14	0.73
137	2021-08-15	0.75
138	2021-08-16	0.76
139	2021-08-17	0.97
140	2021-08-18	0.98
141	2021-08-19	0.41
142	2021-08-20	0.58
143	2021-08-21	0.95
144	2021-08-22	0.76
145	2021-08-23	0.75
146	2021-08-24	0.65
147	2021-08-25	0.60
148	2021-08-26	0.57

SI No	Time	Stack_18_DRI_DE5-PM_U
149	2021-08-27	3.62
150	2021-08-28	7.06
151	2021-08-29	6.54
152	2021-08-30	6.24
153	2021-08-31	8.66

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_16_DRI_GasHeater-NOx_U	Stack_16_DRI_GasHeater-SO2_U
Prescribed Standards	0 -	0 -
Maximum Data	169.88	1542.4
Minimum Data	0.0	0.0
Geometric Mean	29.09	114.92
Median	16.55	54.05
Standard Deviation	31.82	189.82
Maximum Value At Time	2021-04-03	2021-04-03
Minimum Value At Time	2021-07-26	2021-08-24
Valid Data Points	153	153
Total Data Points	153	153
Data Availability %	100.0%	100.0%

SI No	Time	Stack_16_DRI_GasHeater-NOx_U	Stack_16_DRI_GasHeater-SO2_U
1	2021-04-01	94.01	45.54
2	2021-04-02	144.51	1276.93
3	2021-04-03	169.88	1542.40
4	2021-04-04	59.76	23.20
5	2021-04-05	62.32	120.97
6	2021-04-06	30.16	182.85
7	2021-04-07	7.75	276.19
8	2021-04-08	11.95	133.37
9	2021-04-09	16.73	159.94
10	2021-04-10	40.82	141.92
11	2021-04-11	18.40	85.83
12	2021-04-12	16.57	80.07
13	2021-04-13	21.45	37.67
14	2021-04-14	17.43	137.45
15	2021-04-15	37.93	175.83
16	2021-04-16	126.45	78.01
17	2021-04-17	63.84	97.26
18	2021-04-18	67.73	106.87
19	2021-04-19	60.16	222.52
20	2021-04-20	56.82	133.36
21	2021-04-21	58.39	118.05
22	2021-04-22	52.24	144.86
23	2021-04-23	32.40	106.05
24	2021-04-24	38.48	273.42

SI No	Time	Stack_16_DRI_GasHeater-NOx_U	Stack_16_DRI_GasHeater-SO2_U
25	2021-04-25	73.80	473.94
26	2021-04-26	79.19	327.17
27	2021-04-27	24.63	430.97
28	2021-04-28	37.40	103.96
29	2021-04-29	41.20	164.36
30	2021-04-30	38.27	244.46
31	2021-05-01	63.20	139.62
32	2021-05-02	55.25	252.38
33	2021-05-03	60.39	196.66
34	2021-05-04	49.33	306.86
35	2021-05-05	55.65	206.71
36	2021-05-06	65.15	293.79
37	2021-05-07	69.93	272.43
38	2021-05-08	70.85	301.86
39	2021-05-09	77.11	546.41
40	2021-05-10	74.60	379.14
41	2021-05-11	82.57	290.43
42	2021-05-12	90.89	401.97
43	2021-05-13	87.29	473.89
44	2021-05-14	86.63	362.83
45	2021-05-15	64.14	164.74
46	2021-05-16	55.95	236.64
47	2021-05-17	67.50	129.79
48	2021-05-18	57.58	74.35
49	2021-05-19	49.90	147.29
50	2021-05-20	42.10	196.36
51	2021-05-21	47.96	121.08
52	2021-05-22	52.08	163.76
53	2021-05-23	52.36	333.24
54	2021-05-24	57.61	62.74
55	2021-05-25	57.92	76.65
56	2021-05-26	54.23	102.64
57	2021-05-27	55.91	163.77
58	2021-05-28	61.00	14.63
59	2021-05-29	5.04	9.72
60	2021-05-30	4.01	12.12
61	2021-05-31	2.29	2.24
62	2021-06-01	3.32	27.32
63	2021-06-02	4.93	19.38
64	2021-06-03	43.96	0.64
65	2021-06-04	97.43	34.99

SI No	Time	Stack_16_DRI_GasHeater-NOx_U	Stack_16_DRI_GasHeater-SO2_U
66	2021-06-05	40.96	3.76
67	2021-06-06	36.53	142.23
68	2021-06-07	40.32	0.13
69	2021-06-08	42.41	0.09
70	2021-06-09	37.63	0.05
71	2021-06-10	36.13	0.02
72	2021-06-11	36.17	4.88
73	2021-06-12	42.88	12.34
74	2021-06-13	14.04	0.28
75	2021-06-14	39.11	18.78
76	2021-06-15	49.29	9.21
77	2021-06-16	38.26	27.77
78	2021-06-17	42.27	7.39
79	2021-06-18	34.22	19.18
80	2021-06-19	29.70	61.32
81	2021-06-20	23.87	50.12
82	2021-06-21	33.78	57.93
83	2021-06-22	16.55	43.75
84	2021-06-23	15.60	68.59
85	2021-06-24	11.01	86.34
86	2021-06-25	16.15	61.68
87	2021-06-26	15.32	14.43
88	2021-06-27	5.85	89.11
89	2021-06-28	6.89	16.47
90	2021-06-29	16.62	6.27
91	2021-06-30	9.06	24.21
92	2021-07-01	10.98	26.84
93	2021-07-02	9.87	16.31
94	2021-07-03	7.85	31.21
95	2021-07-04	3.42	54.05
96	2021-07-05	4.33	0.61
97	2021-07-06	4.23	7.58
98	2021-07-07	1.87	37.44
99	2021-07-08	1.00	45.82
100	2021-07-09	28.00	69.78
101	2021-07-10	5.44	171.78
102	2021-07-11	2.82	301.39
103	2021-07-12	6.36	171.35
104	2021-07-13	9.72	163.22
105	2021-07-14	15.85	113.65
106	2021-07-15	13.83	124.67
107	2021-07-16	9.86	51.98

SI No	Time	Stack_16_DRI_GasHeater-NOx_U	Stack_16_DRI_GasHeater-SO2_U
108	2021-07-17	3.88	54.08
109	2021-07-18	2.10	142.25
110	2021-07-19	3.20	19.52
111	2021-07-20	1.43	54.58
112	2021-07-21	1.42	317.82
113	2021-07-22	11.80	32.96
114	2021-07-23	5.05	18.39
115	2021-07-24	5.63	80.01
116	2021-07-25	1.68	30.03
117	2021-07-26	0.00	48.09
118	2021-07-27	0.00	22.23
119	2021-07-28	0.00	153.40
120	2021-07-29	10.31	8.42
121	2021-07-30	4.95	12.00
122	2021-07-31	0.48	25.03
123	2021-08-01	0.17	168.06
124	2021-08-02	0.42	4.22
125	2021-08-03	0.36	8.81
126	2021-08-04	0.00	65.11
127	2021-08-05	0.06	9.84
128	2021-08-06	0.09	2.39
129	2021-08-07	0.02	8.68
130	2021-08-08	0.09	13.27
131	2021-08-09	0.00	0.16
132	2021-08-10	0.00	4.91
133	2021-08-11	0.00	0.67
134	2021-08-12	0.00	0.18
135	2021-08-13	0.00	48.67
136	2021-08-14	0.00	2.91
137	2021-08-15	0.49	0.27
138	2021-08-16	0.00	0.53
139	2021-08-17	0.00	0.02
140	2021-08-18	0.00	8.42
141	2021-08-19	0.02	0.19
142	2021-08-20	0.00	1.84
143	2021-08-21	0.00	6.87
144	2021-08-22	0.93	16.93
145	2021-08-23	0.02	0.02
146	2021-08-24	0.00	0.00
147	2021-08-25	0.00	1.83
148	2021-08-26	0.00	0.00

Sl No	Time	Stack_16_DRI_GasHeater-NOx_U	Stack_16_DRI_GasHeater-SO2_U
149	2021-08-27	0.00	0.13
150	2021-08-28	2.42	9.86
151	2021-08-29	1.04	0.00
152	2021-08-30	0.00	0.00
153	2021-08-31	0.00	0.00

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

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Description	STACK_33_BOF_ESP-PM_U
Prescribed Standards	0 - 100
Maximum Data	38.93
Minimum Data	1.31
Geometric Mean	17.25
Median	18.7
Standard Deviation	9.25
Maximum Value At Time	2021-04-16
Minimum Value At Time	2021-06-18
Valid Data Points	151
Total Data Points	153
Data Availability %	98.69%

SI No	Time	STACK_33_BOF_ESP-PM_U
1	2021-04-01	31.49
2	2021-04-02	34.76
3	2021-04-03	33.14
4	2021-04-04	33.05
5	2021-04-05	33.00
6	2021-04-06	29.65
7	2021-04-07	30.30
8	2021-04-08	23.01
9	2021-04-09	21.08
10	2021-04-10	24.59
11	2021-04-11	32.30
12	2021-04-12	32.95
13	2021-04-13	29.15
14	2021-04-14	34.63
15	2021-04-15	33.68
16	2021-04-16	38.93
17	2021-04-17	28.25
18	2021-04-18	22.20
19	2021-04-19	25.02
20	2021-04-20	22.69
21	2021-04-21	23.17
22	2021-04-22	21.76
23	2021-04-23	21.42

SI No	Time	STACK_33_BOF_ESP-PM_U
24	2021-04-24	19.15
25	2021-04-25	22.27
26	2021-04-26	25.75
27	2021-04-27	26.76
28	2021-04-28	22.49
29	2021-04-29	18.84
30	2021-04-30	19.68
31	2021-05-01	18.81
32	2021-05-02	19.68
33	2021-05-03	21.23
34	2021-05-04	19.45
35	2021-05-05	22.18
36	2021-05-06	22.43
37	2021-05-07	18.69
38	2021-05-08	17.18
39	2021-05-09	17.32
40	2021-05-10	17.51
41	2021-05-11	16.25
42	2021-05-12	14.97
43	2021-05-13	14.47
44	2021-05-14	16.47
45	2021-05-15	16.52
46	2021-05-16	16.61
47	2021-05-17	17.64
48	2021-05-18	18.14
49	2021-05-19	20.16
50	2021-05-20	18.65
51	2021-05-21	18.70
52	2021-05-22	20.45
53	2021-05-23	18.71
54	2021-05-24	19.27
55	2021-05-25	20.58
56	2021-05-26	24.46
57	2021-05-27	35.63
58	2021-05-28	34.76
59	2021-05-29	35.32
60	2021-05-30	32.10
61	2021-05-31	20.59
62	2021-06-01	NA
63	2021-06-02	NA
64	2021-06-03	24.90
65	2021-06-04	15.50

SI No	Time	STACK_33_BOF_ESP-PM_U
66	2021-06-05	3.80
67	2021-06-06	4.40
68	2021-06-07	5.49
69	2021-06-08	5.75
70	2021-06-09	14.06
71	2021-06-10	20.43
72	2021-06-11	2.76
73	2021-06-12	3.22
74	2021-06-13	4.69
75	2021-06-14	5.00
76	2021-06-15	3.50
77	2021-06-16	5.31
78	2021-06-17	1.53
79	2021-06-18	1.31
80	2021-06-19	2.45
81	2021-06-20	2.92
82	2021-06-21	2.70
83	2021-06-22	4.55
84	2021-06-23	4.33
85	2021-06-24	4.02
86	2021-06-25	2.35
87	2021-06-26	2.68
88	2021-06-27	1.95
89	2021-06-28	3.20
90	2021-06-29	3.06
91	2021-06-30	2.18
92	2021-07-01	2.11
93	2021-07-02	3.14
94	2021-07-03	3.68
95	2021-07-04	2.18
96	2021-07-05	1.60
97	2021-07-06	1.70
98	2021-07-07	2.97
99	2021-07-08	3.66
100	2021-07-09	9.71
101	2021-07-10	16.85
102	2021-07-11	17.02
103	2021-07-12	17.12
104	2021-07-13	20.61
105	2021-07-14	19.11
106	2021-07-15	20.75

SI No	Time	STACK_33_BOF_ESP-PM_U
107	2021-07-16	27.77
108	2021-07-17	21.73
109	2021-07-18	10.37
110	2021-07-19	15.55
111	2021-07-20	11.44
112	2021-07-21	9.92
113	2021-07-22	10.99
114	2021-07-23	11.51
115	2021-07-24	13.09
116	2021-07-25	12.71
117	2021-07-26	13.28
118	2021-07-27	13.14
119	2021-07-28	12.00
120	2021-07-29	12.45
121	2021-07-30	13.10
122	2021-07-31	11.64
123	2021-08-01	13.38
124	2021-08-02	12.05
125	2021-08-03	17.52
126	2021-08-04	19.49
127	2021-08-05	22.98
128	2021-08-06	22.05
129	2021-08-07	29.05
130	2021-08-08	17.10
131	2021-08-09	21.04
132	2021-08-10	19.77
133	2021-08-11	17.02
134	2021-08-12	18.51
135	2021-08-13	17.24
136	2021-08-14	16.93
137	2021-08-15	17.36
138	2021-08-16	22.29
139	2021-08-17	23.26
140	2021-08-18	18.79
141	2021-08-19	20.58
142	2021-08-20	19.64
143	2021-08-21	21.37
144	2021-08-22	20.22
145	2021-08-23	21.77
146	2021-08-24	20.88
147	2021-08-25	21.91

SI No	Time	STACK_33_BOF_ESP-PM_U
148	2021-08-26	20.81
149	2021-08-27	18.66
150	2021-08-28	24.50
151	2021-08-29	22.69
152	2021-08-30	22.14
153	2021-08-31	22.38

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

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Description	Stcak_32_HTDC_DRI-PM_U
Prescribed Standards	0 - 50
Maximum Data	83.76
Minimum Data	0.05
Geometric Mean	15.95
Median	9.86
Standard Deviation	18.43
Maximum Value At Time	2021-07-29
Minimum Value At Time	2021-06-07
Valid Data Points	146
Total Data Points	153
Data Availability %	95.42%

SI No	Time	Stcak_32_HTDC_DRI-PM_U
1	2021-04-01	11.91
2	2021-04-02	11.78
3	2021-04-03	11.83
4	2021-04-04	11.76
5	2021-04-05	11.69
6	2021-04-06	11.23
7	2021-04-07	9.48
8	2021-04-08	9.34
9	2021-04-09	9.23
10	2021-04-10	9.72
11	2021-04-11	9.75
12	2021-04-12	9.33
13	2021-04-13	9.40
14	2021-04-14	12.74
15	2021-04-15	16.43
16	2021-04-16	14.17
17	2021-04-17	30.07
18	2021-04-18	26.14
19	2021-04-19	22.29
20	2021-04-20	36.95
21	2021-04-21	40.60
22	2021-04-22	71.53
23	2021-04-23	62.69
24	2021-04-24	55.63

SI No	Time	Stcak_32_HTDC_DRI-PM_U
25	2021-04-25	54.97
26	2021-04-26	51.15
27	2021-04-27	47.54
28	2021-04-28	55.54
29	2021-04-29	46.03
30	2021-04-30	22.02
31	2021-05-01	28.20
32	2021-05-02	31.24
33	2021-05-03	26.67
34	2021-05-04	22.87
35	2021-05-05	11.84
36	2021-05-06	3.72
37	2021-05-07	4.83
38	2021-05-08	4.70
39	2021-05-09	4.42
40	2021-05-10	4.46
41	2021-05-11	7.53
42	2021-05-12	6.57
43	2021-05-13	8.75
44	2021-05-14	15.18
45	2021-05-15	3.51
46	2021-05-16	4.78
47	2021-05-17	4.84
48	2021-05-18	4.27
49	2021-05-19	5.83
50	2021-05-20	6.40
51	2021-05-21	6.76
52	2021-05-22	7.40
53	2021-05-23	7.22
54	2021-05-24	7.58
55	2021-05-25	8.31
56	2021-05-26	7.88
57	2021-05-27	33.06
58	2021-05-28	43.44
59	2021-05-29	0.53
60	2021-05-30	0.54
61	2021-05-31	0.54
62	2021-06-01	0.54
63	2021-06-02	0.42
64	2021-06-03	0.41
65	2021-06-04	1.38

SI No	Time	Stcak_32_HTDC_DRI-PM_U
66	2021-06-05	5.37
67	2021-06-06	2.55
68	2021-06-07	0.05
69	2021-06-08	0.27
70	2021-06-09	0.07
71	2021-06-10	0.07
72	2021-06-11	0.09
73	2021-06-12	0.13
74	2021-06-13	0.39
75	2021-06-14	0.32
76	2021-06-15	0.36
77	2021-06-16	0.41
78	2021-06-17	0.41
79	2021-06-18	0.32
80	2021-06-19	14.95
81	2021-06-20	0.68
82	2021-06-21	5.61
83	2021-06-22	9.45
84	2021-06-23	9.87
85	2021-06-24	9.86
86	2021-06-25	9.68
87	2021-06-26	10.37
88	2021-06-27	10.62
89	2021-06-28	16.77
90	2021-06-29	9.62
91	2021-06-30	12.05
92	2021-07-01	12.04
93	2021-07-02	14.06
94	2021-07-03	17.90
95	2021-07-04	22.46
96	2021-07-05	9.99
97	2021-07-06	9.59
98	2021-07-07	21.37
99	2021-07-08	9.41
100	2021-07-09	11.96
101	2021-07-10	9.60
102	2021-07-11	9.92
103	2021-07-12	9.86
104	2021-07-13	9.91
105	2021-07-14	9.89
106	2021-07-15	10.47
107	2021-07-16	27.10

SI No	Time	Stcak_32_HTDC_DRI-PM_U
108	2021-07-17	7.98
109	2021-07-18	18.23
110	2021-07-19	3.33
111	2021-07-20	3.73
112	2021-07-21	3.81
113	2021-07-22	4.57
114	2021-07-23	74.45
115	2021-07-24	73.45
116	2021-07-25	71.91
117	2021-07-26	72.07
118	2021-07-27	67.27
119	2021-07-28	62.03
120	2021-07-29	83.76
121	2021-07-30	34.07
122	2021-07-31	4.36
123	2021-08-01	4.88
124	2021-08-02	5.22
125	2021-08-03	5.53
126	2021-08-04	8.24
127	2021-08-05	12.29
128	2021-08-06	22.95
129	2021-08-07	11.50
130	2021-08-08	11.91
131	2021-08-09	12.98
132	2021-08-10	13.16
133	2021-08-11	13.07
134	2021-08-12	14.01
135	2021-08-13	15.02
136	2021-08-14	16.58
137	2021-08-15	13.92
138	2021-08-16	3.87
139	2021-08-17	6.01
140	2021-08-18	7.09
141	2021-08-19	6.59
142	2021-08-20	9.09
143	2021-08-21	10.13
144	2021-08-22	10.74
145	2021-08-23	11.71
146	2021-08-24	12.10
147	2021-08-25	NA
148	2021-08-26	NA

SI No	Time	Stcak_32_HTDC_DRI-PM_U
149	2021-08-27	NA
150	2021-08-28	NA
151	2021-08-29	NA
152	2021-08-30	NA
153	2021-08-31	NA

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_10_LimeDoloPlant_Kiln_1-SO2_U	Stack_10_LimeDoloPlant_Kiln_1-PM_U
Prescribed Standards	0 -	0 - 100
Maximum Data	16.12	79.29
Minimum Data	14.02	4.02
Geometric Mean	14.73	13.12
Median	14.66	9.01
Standard Deviation	0.56	12.0
Maximum Value At Time	2021-04-16	2021-08-31
Minimum Value At Time	2021-04-06	2021-04-12
Valid Data Points	148	89
Total Data Points	153	153
Data Availability %	96.73%	58.17%

SI No	Time	Stack_10_LimeDoloPlant_Kiln_1-SO2_U	Stack_10_LimeDoloPlant_Kiln_1-PM_U
1	2021-04-01	NA	6.59
2	2021-04-02	NA	6.51
3	2021-04-03	NA	4.43
4	2021-04-04	NA	21.75
5	2021-04-05	NA	NA
6	2021-04-06	14.02	21.16
7	2021-04-07	14.04	24.92
8	2021-04-08	14.05	20.99
9	2021-04-09	14.20	17.48
10	2021-04-10	14.17	4.89
11	2021-04-11	14.16	4.16
12	2021-04-12	14.04	4.02
13	2021-04-13	14.08	4.76
14	2021-04-14	14.14	4.77
15	2021-04-15	16.03	4.14
16	2021-04-16	16.12	5.70
17	2021-04-17	15.27	5.63
18	2021-04-18	14.53	5.31
19	2021-04-19	14.35	4.99
20	2021-04-20	14.24	6.59
21	2021-04-21	14.15	7.33
22	2021-04-22	14.08	5.49
23	2021-04-23	14.18	6.58
24	2021-04-24	14.59	8.96

SI No	Time	Stack_10_LimeDoloPlant_Kiln_1-SO2_U	Stack_10_LimeDoloPlant_Kiln_1-PM_U
25	2021-04-25	14.40	6.80
26	2021-04-26	14.23	5.09
27	2021-04-27	14.12	7.21
28	2021-04-28	14.16	7.35
29	2021-04-29	14.16	10.77
30	2021-04-30	14.15	11.79
31	2021-05-01	14.18	5.62
32	2021-05-02	14.09	NA
33	2021-05-03	14.18	NA
34	2021-05-04	14.21	NA
35	2021-05-05	14.20	NA
36	2021-05-06	14.07	NA
37	2021-05-07	14.21	NA
38	2021-05-08	14.25	NA
39	2021-05-09	14.24	NA
40	2021-05-10	14.24	NA
41	2021-05-11	14.21	NA
42	2021-05-12	14.13	NA
43	2021-05-13	14.09	NA
44	2021-05-14	14.08	NA
45	2021-05-15	14.08	NA
46	2021-05-16	14.08	NA
47	2021-05-17	14.10	NA
48	2021-05-18	14.11	NA
49	2021-05-19	14.15	NA
50	2021-05-20	14.12	NA
51	2021-05-21	14.11	NA
52	2021-05-22	14.09	NA
53	2021-05-23	14.14	NA
54	2021-05-24	14.26	NA
55	2021-05-25	14.33	NA
56	2021-05-26	14.47	NA
57	2021-05-27	14.36	6.12
58	2021-05-28	14.86	6.89
59	2021-05-29	14.49	7.27
60	2021-05-30	14.45	5.22
61	2021-05-31	14.30	4.93
62	2021-06-01	14.36	4.26
63	2021-06-02	14.30	NA
64	2021-06-03	14.29	NA
65	2021-06-04	14.44	NA

SI No	Time	Stack_10_LimeDoloPlant_Kiln_1-SO2_U	Stack_10_LimeDoloPlant_Kiln_1-PM_U
66	2021-06-05	14.51	NA
67	2021-06-06	14.57	NA
68	2021-06-07	14.82	NA
69	2021-06-08	14.71	NA
70	2021-06-09	14.49	NA
71	2021-06-10	14.72	NA
72	2021-06-11	14.66	NA
73	2021-06-12	14.93	NA
74	2021-06-13	14.67	NA
75	2021-06-14	14.60	NA
76	2021-06-15	15.20	NA
77	2021-06-16	15.26	NA
78	2021-06-17	14.49	NA
79	2021-06-18	14.52	NA
80	2021-06-19	14.61	NA
81	2021-06-20	14.39	NA
82	2021-06-21	14.35	NA
83	2021-06-22	14.30	NA
84	2021-06-23	14.35	NA
85	2021-06-24	14.56	NA
86	2021-06-25	14.52	NA
87	2021-06-26	14.70	NA
88	2021-06-27	14.44	NA
89	2021-06-28	14.40	NA
90	2021-06-29	14.66	NA
91	2021-06-30	14.58	NA
92	2021-07-01	14.58	NA
93	2021-07-02	14.68	NA
94	2021-07-03	14.76	NA
95	2021-07-04	14.83	NA
96	2021-07-05	14.78	NA
97	2021-07-06	14.73	NA
98	2021-07-07	14.76	NA
99	2021-07-08	15.01	NA
100	2021-07-09	14.98	NA
101	2021-07-10	15.02	8.51
102	2021-07-11	14.92	9.89
103	2021-07-12	15.09	8.36
104	2021-07-13	15.08	7.50
105	2021-07-14	14.98	10.42
106	2021-07-15	14.76	12.91
107	2021-07-16	14.76	14.76

SI No	Time	Stack_10_LimeDoloPlant_Kiln_1-SO2_U	Stack_10_LimeDoloPlant_Kiln_1-PM_U
108	2021-07-17	14.86	17.55
109	2021-07-18	15.01	9.01
110	2021-07-19	15.01	7.71
111	2021-07-20	14.94	5.85
112	2021-07-21	14.95	13.19
113	2021-07-22	15.01	18.42
114	2021-07-23	14.98	21.04
115	2021-07-24	14.97	18.15
116	2021-07-25	14.92	18.43
117	2021-07-26	14.96	13.17
118	2021-07-27	15.04	14.30
119	2021-07-28	15.06	20.25
120	2021-07-29	15.06	14.72
121	2021-07-30	15.06	19.51
122	2021-07-31	15.04	13.20
123	2021-08-01	14.99	14.10
124	2021-08-02	15.08	12.47
125	2021-08-03	15.04	11.13
126	2021-08-04	15.08	10.66
127	2021-08-05	15.08	10.20
128	2021-08-06	14.88	10.16
129	2021-08-07	14.94	9.07
130	2021-08-08	15.02	8.38
131	2021-08-09	14.96	10.12
132	2021-08-10	15.00	9.63
133	2021-08-11	14.97	8.22
134	2021-08-12	14.95	7.38
135	2021-08-13	14.77	6.36
136	2021-08-14	14.97	5.75
137	2021-08-15	15.77	5.23
138	2021-08-16	16.01	5.74
139	2021-08-17	16.01	10.78
140	2021-08-18	15.93	13.30
141	2021-08-19	15.87	10.87
142	2021-08-20	15.89	6.96
143	2021-08-21	15.85	6.15
144	2021-08-22	15.90	18.41
145	2021-08-23	15.78	7.46
146	2021-08-24	15.77	32.13
147	2021-08-25	15.73	28.44
148	2021-08-26	15.69	49.81

SI No	Time	Stack_10_LimeDoloPlant_Kiln_1-SO2_U	Stack_10_LimeDoloPlant_Kiln_1-PM_U
149	2021-08-27	15.86	42.14
150	2021-08-28	15.92	35.45
151	2021-08-29	15.87	37.25
152	2021-08-30	15.79	51.57
153	2021-08-31	15.84	79.29

Report Details: JSPLAngul | 2021-09-08 11:44:55 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_11_LimeDoloPlant_Kiln_2-PM_U	Stack_11_LimeDoloPlant_Kiln_2-SO2_U
Prescribed Standards	0 - 100	0 -
Maximum Data	21.67	162.61
Minimum Data	3.68	15.35
Geometric Mean	7.06	29.9
Median	4.8	17.64
Standard Deviation	4.46	22.64
Maximum Value At Time	2021-04-26	2021-04-16
Minimum Value At Time	2021-08-03	2021-04-07
Valid Data Points	78	148
Total Data Points	153	153
Data Availability %	50.98%	96.73%

SI No	Time	Stack_11_LimeDoloPlant_Kiln_2-PM_U	Stack_11_LimeDoloPlant_Kiln_2-SO2_U
1	2021-04-01	11.70	NA
2	2021-04-02	8.77	NA
3	2021-04-03	6.85	NA
4	2021-04-04	5.31	NA
5	2021-04-05	NA	NA
6	2021-04-06	5.69	15.37
7	2021-04-07	7.45	15.35
8	2021-04-08	5.70	15.44
9	2021-04-09	6.38	15.46
10	2021-04-10	18.76	15.47
11	2021-04-11	4.23	15.51
12	2021-04-12	12.07	15.50
13	2021-04-13	5.71	15.46
14	2021-04-14	4.09	24.06
15	2021-04-15	3.91	27.98
16	2021-04-16	8.99	162.61
17	2021-04-17	9.94	71.58
18	2021-04-18	8.08	21.85
19	2021-04-19	11.55	65.39
20	2021-04-20	12.77	66.54
21	2021-04-21	15.09	37.51
22	2021-04-22	15.15	42.27
23	2021-04-23	17.77	21.10
24	2021-04-24	14.16	74.15

SI No	Time	Stack_11_LimeDoloPlant_Kiln_2-PM_U	Stack_11_LimeDoloPlant_Kiln_2-SO2_U
25	2021-04-25	15.32	28.56
26	2021-04-26	21.67	18.23
27	2021-04-27	15.84	21.84
28	2021-04-28	13.49	35.35
29	2021-04-29	17.33	73.25
30	2021-04-30	16.26	47.62
31	2021-05-01	3.75	30.41
32	2021-05-02	NA	45.33
33	2021-05-03	NA	42.36
34	2021-05-04	NA	34.13
35	2021-05-05	NA	19.56
36	2021-05-06	NA	28.91
37	2021-05-07	NA	41.87
38	2021-05-08	NA	65.96
39	2021-05-09	NA	18.48
40	2021-05-10	NA	20.53
41	2021-05-11	NA	94.42
42	2021-05-12	NA	112.04
43	2021-05-13	NA	108.24
44	2021-05-14	NA	58.25
45	2021-05-15	NA	32.33
46	2021-05-16	NA	22.90
47	2021-05-17	NA	26.01
48	2021-05-18	NA	39.28
49	2021-05-19	NA	39.53
50	2021-05-20	NA	29.90
51	2021-05-21	NA	22.46
52	2021-05-22	NA	48.64
53	2021-05-23	NA	64.72
54	2021-05-24	NA	18.07
55	2021-05-25	NA	17.56
56	2021-05-26	NA	17.17
57	2021-05-27	5.38	16.73
58	2021-05-28	9.87	23.86
59	2021-05-29	7.26	17.68
60	2021-05-30	4.15	15.87
61	2021-05-31	4.34	15.88
62	2021-06-01	4.04	16.08
63	2021-06-02	NA	15.98
64	2021-06-03	NA	16.59
65	2021-06-04	NA	17.46

SI No	Time	Stack_11_LimeDoloPlant_Kiln_2-PM_U	Stack_11_LimeDoloPlant_Kiln_2-SO2_U
66	2021-06-05	NA	17.10
67	2021-06-06	NA	16.93
68	2021-06-07	NA	16.80
69	2021-06-08	NA	16.68
70	2021-06-09	NA	16.46
71	2021-06-10	NA	17.42
72	2021-06-11	NA	17.10
73	2021-06-12	NA	17.12
74	2021-06-13	NA	17.21
75	2021-06-14	NA	17.19
76	2021-06-15	NA	17.01
77	2021-06-16	NA	16.94
78	2021-06-17	NA	16.80
79	2021-06-18	NA	17.06
80	2021-06-19	NA	17.10
81	2021-06-20	NA	17.18
82	2021-06-21	NA	17.00
83	2021-06-22	NA	16.84
84	2021-06-23	NA	16.66
85	2021-06-24	NA	17.21
86	2021-06-25	NA	16.82
87	2021-06-26	NA	17.11
88	2021-06-27	NA	17.30
89	2021-06-28	NA	17.24
90	2021-06-29	NA	17.09
91	2021-06-30	NA	16.78
92	2021-07-01	NA	17.73
93	2021-07-02	NA	17.26
94	2021-07-03	NA	18.02
95	2021-07-04	NA	17.76
96	2021-07-05	NA	17.24
97	2021-07-06	NA	17.61
98	2021-07-07	NA	17.57
99	2021-07-08	NA	17.31
100	2021-07-09	NA	17.24
101	2021-07-10	4.87	17.22
102	2021-07-11	4.48	16.37
103	2021-07-12	4.12	16.42
104	2021-07-13	4.07	16.47
105	2021-07-14	3.96	27.66
106	2021-07-15	3.97	22.15
107	2021-07-16	4.13	19.32

SI No	Time	Stack_11_LimeDoloPlant_Kiln_2-PM_U	Stack_11_LimeDoloPlant_Kiln_2-SO2_U
108	2021-07-17	4.08	16.46
109	2021-07-18	4.03	16.50
110	2021-07-19	3.99	16.42
111	2021-07-20	NA	16.32
112	2021-07-21	NA	16.34
113	2021-07-22	NA	16.40
114	2021-07-23	NA	16.51
115	2021-07-24	NA	16.46
116	2021-07-25	NA	16.36
117	2021-07-26	NA	16.30
118	2021-07-27	NA	16.22
119	2021-07-28	NA	16.32
120	2021-07-29	NA	16.40
121	2021-07-30	NA	16.41
122	2021-07-31	3.81	16.36
123	2021-08-01	4.19	16.24
124	2021-08-02	4.23	16.39
125	2021-08-03	3.68	16.39
126	2021-08-04	3.69	16.38
127	2021-08-05	3.84	16.39
128	2021-08-06	3.93	16.38
129	2021-08-07	4.00	19.54
130	2021-08-08	3.83	19.45
131	2021-08-09	3.70	18.07
132	2021-08-10	4.64	18.01
133	2021-08-11	4.50	19.03
134	2021-08-12	4.26	21.90
135	2021-08-13	4.28	26.19
136	2021-08-14	4.14	33.31
137	2021-08-15	4.35	40.97
138	2021-08-16	4.10	47.74
139	2021-08-17	5.87	53.05
140	2021-08-18	7.05	57.22
141	2021-08-19	9.97	61.40
142	2021-08-20	4.45	58.92
143	2021-08-21	4.42	57.63
144	2021-08-22	4.57	55.93
145	2021-08-23	5.15	55.38
146	2021-08-24	4.75	56.72
147	2021-08-25	5.29	60.37
148	2021-08-26	5.31	62.38

SI No	Time	Stack_11_LimeDoloPlant_Kiln_2-PM_U	Stack_11_LimeDoloPlant_Kiln_2-SO2_U
149	2021-08-27	5.07	60.02
150	2021-08-28	5.15	58.38
151	2021-08-29	4.78	55.86
152	2021-08-30	4.81	56.64
153	2021-08-31	4.32	52.66

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_7_Process_Boiler_1- NOx_U	Stack_7_Process_Boiler_1- SO2_U	Stack_7_Process_Boiler_1- PM_U
Prescribed Standards	0 - 450	0 - 600	0 - 50
Maximum Data	58.65	556.88	49.3
Minimum Data	2.19	0.09	0.2
Geometric Mean	46.14	414.9	24.47
Median	48.4	436.41	23.98
Standard Deviation	11.77	123.11	11.22
Maximum Value At Time	2021-08-26	2021-08-26	2021-08-04
Minimum Value At Time	2021-08-31	2021-05-31	2021-05-31
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_7_Process_Boiler_1- NOx_U	Stack_7_Process_Boiler_1- SO2_U	Stack_7_Process_Boiler_1- PM_U
1	2021-04-01	45.12	397.69	28.16
2	2021-04-02	45.54	402.67	28.91
3	2021-04-03	46.07	408.77	29.83
4	2021-04-04	45.61	403.27	29.00
5	2021-04-05	50.52	462.09	37.78
6	2021-04-06	43.30	375.53	24.84
7	2021-04-07	46.39	412.55	30.38
8	2021-04-08	49.16	445.77	35.35
9	2021-04-09	35.99	288.14	12.20
10	2021-04-10	42.92	371.17	24.27
11	2021-04-11	47.11	421.12	31.66
12	2021-04-12	47.19	422.14	31.82

SI No	Time	Stack_7_Process_Boiler_1- NOx_U	Stack_7_Process_Boiler_1- SO2_U	Stack_7_Process_Boiler_1- PM_U
13	2021-04-13	50.24	458.56	37.26
14	2021-04-14	52.73	488.43	39.72
15	2021-04-15	50.93	467.16	31.34
16	2021-04-16	48.04	432.48	26.16
17	2021-04-17	54.71	512.41	38.11
18	2021-04-18	51.07	468.72	31.59
19	2021-04-19	46.54	414.46	23.48
20	2021-04-20	46.32	411.86	23.10
21	2021-04-21	48.13	433.36	26.32
22	2021-04-22	48.43	436.93	26.85
23	2021-04-23	48.73	440.46	27.38
24	2021-04-24	47.54	426.34	25.26
25	2021-04-25	44.93	395.14	20.59
26	2021-04-26	46.66	415.94	19.73
27	2021-04-27	46.92	418.96	19.35
28	2021-04-28	52.01	479.95	28.48
29	2021-04-29	52.77	489.02	29.84
30	2021-04-30	50.59	462.74	25.91
31	2021-05-01	47.50	425.80	20.38
32	2021-05-02	50.32	459.41	25.42
33	2021-05-03	51.55	474.44	27.65
34	2021-05-04	51.89	478.44	28.25
35	2021-05-05	52.53	486.19	29.42
36	2021-05-06	48.74	440.80	22.62

SI No	Time	Stack_7_Process_Boiler_1- NOx_U	Stack_7_Process_Boiler_1- SO2_U	Stack_7_Process_Boiler_1- PM_U
37	2021-05-07	49.25	446.66	23.51
38	2021-05-08	49.99	455.74	24.87
39	2021-05-09	50.64	463.37	26.00
40	2021-05-10	48.00	431.85	21.29
41	2021-05-11	46.05	408.43	17.79
42	2021-05-12	48.95	443.24	22.99
43	2021-05-13	50.32	459.44	25.42
44	2021-05-14	46.77	417.05	19.07
45	2021-05-15	47.23	422.43	19.88
46	2021-05-16	47.50	425.71	20.37
47	2021-05-17	47.45	425.16	20.29
48	2021-05-18	53.80	501.24	31.67
49	2021-05-19	52.96	491.13	30.16
50	2021-05-20	54.97	515.18	33.74
51	2021-05-21	49.44	448.94	23.84
52	2021-05-22	46.54	414.29	18.66
53	2021-05-23	40.47	341.50	7.85
54	2021-05-24	43.38	376.43	13.00
55	2021-05-25	45.20	398.40	16.29
56	2021-05-26	47.18	422.16	19.84
57	2021-05-27	47.85	430.06	21.03
58	2021-05-28	39.43	329.63	11.25
59	2021-05-29	4.55	0.10	0.21
60	2021-05-30	10.10	4.77	0.21

SI No	Time	Stack_7_Process_Boiler_1-NOx_U	Stack_7_Process_Boiler_1-SO2_U	Stack_7_Process_Boiler_1-PM_U
61	2021-05-31	2.57	0.09	0.20
62	2021-06-01	3.11	2.38	0.21
63	2021-06-02	10.21	24.50	0.21
64	2021-06-03	14.17	77.89	0.21
65	2021-06-04	39.99	335.81	12.08
66	2021-06-05	54.68	511.70	33.23
67	2021-06-06	52.15	481.44	28.71
68	2021-06-07	49.06	444.11	23.13
69	2021-06-08	45.26	398.59	16.32
70	2021-06-09	52.59	486.55	29.48
71	2021-06-10	48.24	434.36	21.67
72	2021-06-11	44.68	391.88	15.31
73	2021-06-12	45.06	396.47	16.01
74	2021-06-13	41.96	359.13	10.42
75	2021-06-14	45.35	400.50	16.51
76	2021-06-15	46.34	411.66	18.27
77	2021-06-16	44.71	392.16	15.36
78	2021-06-17	45.42	400.71	16.64
79	2021-06-18	44.06	384.43	14.20
80	2021-06-19	49.37	448.13	23.73
81	2021-06-20	47.07	420.53	19.60
82	2021-06-21	45.23	398.63	16.32
83	2021-06-22	51.57	474.46	27.67

SI No	Time	Stack_7_Process_Boiler_1- NOx_U	Stack_7_Process_Boiler_1- SO2_U	Stack_7_Process_Boiler_1- PM_U
84	2021-06-23	48.14	433.32	21.51
85	2021-06-24	48.40	436.41	21.98
86	2021-06-25	50.90	466.34	26.45
87	2021-06-26	47.58	426.51	20.50
88	2021-06-27	45.38	400.14	16.56
89	2021-06-28	46.74	416.38	18.98
90	2021-06-29	44.56	390.22	15.08
91	2021-06-30	45.71	404.08	17.14
92	2021-07-01	45.80	405.22	17.31
93	2021-07-02	44.96	395.05	15.79
94	2021-07-03	43.50	377.68	13.19
95	2021-07-04	48.51	437.56	22.15
96	2021-07-05	49.52	449.79	23.98
97	2021-07-06	49.04	443.99	23.11
98	2021-07-07	51.22	470.06	27.01
99	2021-07-08	49.91	454.46	24.68
100	2021-07-09	47.80	429.14	20.89
101	2021-07-10	45.89	406.31	17.47
102	2021-07-11	49.10	444.65	23.21
103	2021-07-12	51.81	477.08	28.06
104	2021-07-13	47.31	423.23	20.01
105	2021-07-14	47.48	425.14	20.29
106	2021-07-15	48.96	442.96	23.03
107	2021-07-16	51.79	477.03	28.05

SI No	Time	Stack_7_Process_Boiler_1-NOx_U	Stack_7_Process_Boiler_1-SO2_U	Stack_7_Process_Boiler_1-PM_U
108	2021-07-17	54.15	505.50	32.31
109	2021-07-18	54.52	509.82	32.95
110	2021-07-19	49.49	449.42	23.92
111	2021-07-20	46.90	418.46	19.29
112	2021-07-21	53.44	497.11	31.05
113	2021-07-22	55.56	522.62	34.86
114	2021-07-23	48.45	437.36	22.11
115	2021-07-24	46.55	414.60	18.71
116	2021-07-25	47.73	428.64	20.80
117	2021-07-26	38.59	319.01	5.45
118	2021-07-27	39.04	324.31	5.22
119	2021-07-28	15.13	89.91	0.92
120	2021-07-29	5.54	0.25	0.21
121	2021-07-30	49.49	450.51	34.22
122	2021-07-31	53.71	500.28	41.08
123	2021-08-01	55.03	515.82	43.41
124	2021-08-02	56.34	531.67	45.78
125	2021-08-03	54.88	514.27	43.17
126	2021-08-04	58.31	555.22	49.30
127	2021-08-05	7.85	16.12	1.39
128	2021-08-06	42.80	371.13	28.89
129	2021-08-07	54.93	514.89	43.25
130	2021-08-08	55.13	517.29	43.62
131	2021-08-09	54.27	507.00	42.07

SI No	Time	Stack_7_Process_Boiler_1-NOx_U	Stack_7_Process_Boiler_1-SO2_U	Stack_7_Process_Boiler_1-PM_U
132	2021-08-10	54.45	509.03	42.37
133	2021-08-11	54.98	515.55	43.36
134	2021-08-12	55.84	525.87	44.90
135	2021-08-13	55.52	522.08	40.18
136	2021-08-14	55.80	525.36	37.64
137	2021-08-15	54.66	511.67	35.61
138	2021-08-16	54.56	510.50	35.43
139	2021-08-17	54.34	507.94	35.04
140	2021-08-18	56.04	528.24	38.07
141	2021-08-19	54.73	512.62	35.75
142	2021-08-20	55.54	522.32	37.19
143	2021-08-21	55.22	518.39	36.61
144	2021-08-22	55.05	516.20	36.29
145	2021-08-23	54.37	507.92	35.05
146	2021-08-24	55.37	519.94	36.85
147	2021-08-25	57.26	542.31	40.23
148	2021-08-26	58.65	556.88	42.71
149	2021-08-27	56.37	529.55	38.63
150	2021-08-28	52.19	479.40	31.15
151	2021-08-29	19.11	139.23	6.79
152	2021-08-30	13.47	56.47	0.21
153	2021-08-31	2.19	0.16	0.21



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_8_Process_Boiler_2-NOx_U	Stack_8_Process_Boiler_2-SO2_U	Stack_8_Process_Boiler_2-PM_U
Prescribed Standards	0 - 450	0 - 600	0 - 50
Maximum Data	215.23	546.62	42.76
Minimum Data	0.08	0.0	0.04
Geometric Mean	88.79	252.48	16.22
Median	79.25	256.35	10.03
Standard Deviation	64.03	101.77	13.18
Maximum Value At Time	2021-08-26	2021-04-13	2021-08-26
Minimum Value At Time	2021-08-02	2021-05-29	2021-04-13
Valid Data Points	153	151	153
Total Data Points	153	153	153
Data Availability %	100.0%	98.69%	100.0%

SI No	Time	Stack_8_Process_Boiler_2-NOx_U	Stack_8_Process_Boiler_2-SO2_U	Stack_8_Process_Boiler_2-PM_U
1	2021-04-01	67.24	248.48	13.38
2	2021-04-02	70.97	250.77	13.74
3	2021-04-03	78.54	255.62	15.01
4	2021-04-04	80.11	255.29	14.52
5	2021-04-05	6.79	249.12	7.94
6	2021-04-06	0.20	361.23	1.32
7	2021-04-07	0.20	513.23	0.07
8	2021-04-08	0.18	85.57	0.50
9	2021-04-09	54.43	269.53	11.83
10	2021-04-10	38.16	233.91	7.71
11	2021-04-11	0.15	155.95	0.28
12	2021-04-12	0.19	NA	0.06

SI No	Time	Stack_8_Process_Boiler_2-NOx_U	Stack_8_Process_Boiler_2-SO2_U	Stack_8_Process_Boiler_2-PM_U
13	2021-04-13	0.20	546.62	0.04
14	2021-04-14	0.17	NA	0.10
15	2021-04-15	6.94	209.13	3.45
16	2021-04-16	104.60	290.75	26.85
17	2021-04-17	174.79	342.82	41.52
18	2021-04-18	170.55	338.48	39.93
19	2021-04-19	96.46	280.36	24.71
20	2021-04-20	95.83	283.07	28.25
21	2021-04-21	99.44	280.99	24.40
22	2021-04-22	115.04	289.80	29.57
23	2021-04-23	131.31	290.05	20.59
24	2021-04-24	153.86	313.09	29.07
25	2021-04-25	147.04	299.31	13.39
26	2021-04-26	125.83	279.96	7.21
27	2021-04-27	124.35	300.87	25.95
28	2021-04-28	207.67	349.15	35.91
29	2021-04-29	196.38	344.27	34.63
30	2021-04-30	163.86	327.32	30.48
31	2021-05-01	145.75	317.89	28.15
32	2021-05-02	148.95	321.67	28.91
33	2021-05-03	151.77	324.69	29.36
34	2021-05-04	154.13	330.00	30.49
35	2021-05-05	148.27	322.94	29.32
36	2021-05-06	147.27	313.94	29.03

SI No	Time	Stack_8_Process_Boiler_2-NOx_U	Stack_8_Process_Boiler_2-SO2_U	Stack_8_Process_Boiler_2-PM_U
37	2021-05-07	147.36	312.91	28.70
38	2021-05-08	144.03	309.17	26.55
39	2021-05-09	138.39	311.83	26.88
40	2021-05-10	136.59	314.34	27.47
41	2021-05-11	137.59	314.90	27.74
42	2021-05-12	130.09	305.99	25.91
43	2021-05-13	140.00	310.15	26.90
44	2021-05-14	132.65	302.62	25.66
45	2021-05-15	137.86	310.52	27.62
46	2021-05-16	133.32	312.25	27.10
47	2021-05-17	149.18	323.32	30.96
48	2021-05-18	196.25	343.84	37.12
49	2021-05-19	204.82	353.23	38.33
50	2021-05-20	204.66	350.70	37.60
51	2021-05-21	157.41	330.89	33.05
52	2021-05-22	130.37	309.58	28.01
53	2021-05-23	122.35	303.80	26.36
54	2021-05-24	111.70	297.95	24.98
55	2021-05-25	97.15	281.34	21.38
56	2021-05-26	89.50	267.56	17.72
57	2021-05-27	70.56	253.50	15.09
58	2021-05-28	15.93	226.49	2.75
59	2021-05-29	0.13	0.00	0.08
60	2021-05-30	0.10	0.00	0.06

SI No	Time	Stack_8_Process_Boiler_2-NOx_U	Stack_8_Process_Boiler_2-SO2_U	Stack_8_Process_Boiler_2-PM_U
61	2021-05-31	0.11	0.01	0.06
62	2021-06-01	0.48	0.01	0.66
63	2021-06-02	0.12	38.69	0.07
64	2021-06-03	0.13	0.01	0.08
65	2021-06-04	0.13	515.96	0.08
66	2021-06-05	0.11	208.04	0.06
67	2021-06-06	40.53	230.42	5.05
68	2021-06-07	69.43	246.31	6.80
69	2021-06-08	83.63	253.98	8.02
70	2021-06-09	76.38	258.04	8.60
71	2021-06-10	72.90	260.03	9.01
72	2021-06-11	60.10	244.74	6.62
73	2021-06-12	75.94	259.54	8.90
74	2021-06-13	71.01	256.60	8.12
75	2021-06-14	72.22	255.03	8.21
76	2021-06-15	79.03	254.91	7.93
77	2021-06-16	76.00	254.62	8.09
78	2021-06-17	75.30	255.85	8.48
79	2021-06-18	78.28	256.35	8.47
80	2021-06-19	83.24	256.71	8.75
81	2021-06-20	75.89	253.86	7.65
82	2021-06-21	76.10	251.87	7.52
83	2021-06-22	75.03	254.19	8.33

SI No	Time	Stack_8_Process_Boiler_2-NOx_U	Stack_8_Process_Boiler_2-SO2_U	Stack_8_Process_Boiler_2-PM_U
84	2021-06-23	75.80	252.71	7.77
85	2021-06-24	79.25	253.48	7.82
86	2021-06-25	75.56	253.61	8.30
87	2021-06-26	80.01	247.08	8.50
88	2021-06-27	76.42	242.15	8.29
89	2021-06-28	79.53	241.33	8.39
90	2021-06-29	72.15	238.47	7.47
91	2021-06-30	80.13	240.11	7.72
92	2021-07-01	83.57	238.52	7.23
93	2021-07-02	83.92	242.49	8.14
94	2021-07-03	80.23	244.46	8.58
95	2021-07-04	76.99	250.12	9.09
96	2021-07-05	75.11	241.41	8.96
97	2021-07-06	80.22	240.55	9.56
98	2021-07-07	77.28	248.18	9.47
99	2021-07-08	75.83	254.93	15.18
100	2021-07-09	71.47	254.47	13.84
101	2021-07-10	74.41	246.68	10.28
102	2021-07-11	75.09	247.01	9.40
103	2021-07-12	75.75	249.02	10.03
104	2021-07-13	73.08	250.32	9.87
105	2021-07-14	76.92	247.34	8.32
106	2021-07-15	124.83	297.61	22.67
107	2021-07-16	138.70	324.83	30.80

SI No	Time	Stack_8_Process_Boiler_2-NOx_U	Stack_8_Process_Boiler_2-SO2_U	Stack_8_Process_Boiler_2-PM_U
108	2021-07-17	13.42	74.32	3.50
109	2021-07-18	10.89	218.70	1.38
110	2021-07-19	87.67	251.19	8.42
111	2021-07-20	84.50	247.75	7.04
112	2021-07-21	27.15	128.90	2.14
113	2021-07-22	0.12	56.74	0.08
114	2021-07-23	53.87	193.50	7.80
115	2021-07-24	70.59	244.13	17.90
116	2021-07-25	116.51	284.25	26.28
117	2021-07-26	89.25	279.79	24.45
118	2021-07-27	102.84	298.58	26.66
119	2021-07-28	174.00	339.61	36.13
120	2021-07-29	5.22	20.59	8.58
121	2021-07-30	0.12	70.86	0.07
122	2021-07-31	0.12	20.35	0.07
123	2021-08-01	0.25	106.36	0.45
124	2021-08-02	0.08	183.82	0.11
125	2021-08-03	0.13	197.26	0.08
126	2021-08-04	99.98	290.62	19.96
127	2021-08-05	180.56	367.14	35.23
128	2021-08-06	191.33	357.45	34.12
129	2021-08-07	186.26	352.16	33.99
130	2021-08-08	14.55	85.37	12.35
131	2021-08-09	0.14	123.94	0.09

SI No	Time	Stack_8_Process_Boiler_2-NOx_U	Stack_8_Process_Boiler_2-SO2_U	Stack_8_Process_Boiler_2-PM_U
132	2021-08-10	0.15	57.70	0.10
133	2021-08-11	0.14	0.01	0.09
134	2021-08-12	0.13	0.01	0.09
135	2021-08-13	0.11	9.13	0.07
136	2021-08-14	0.10	65.77	0.06
137	2021-08-15	0.11	88.84	0.07
138	2021-08-16	115.10	294.03	24.76
139	2021-08-17	163.30	318.97	32.86
140	2021-08-18	190.55	337.58	37.64
141	2021-08-19	192.67	342.23	38.50
142	2021-08-20	202.35	341.78	38.14
143	2021-08-21	200.16	345.53	38.08
144	2021-08-22	189.94	340.98	38.01
145	2021-08-23	192.50	341.91	39.56
146	2021-08-24	202.53	351.21	40.92
147	2021-08-25	207.29	351.53	41.50
148	2021-08-26	215.23	353.54	42.76
149	2021-08-27	202.17	344.17	37.97
150	2021-08-28	153.88	313.47	30.59
151	2021-08-29	78.77	259.58	19.13
152	2021-08-30	10.80	216.74	9.92
153	2021-08-31	17.37	221.27	10.84



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
Prescribed Standards	0 - 50	0 - 600	0 - 450
Maximum Data	47.34	537.68	66.62
Minimum Data	0.02	3.72	66.56
Geometric Mean	26.56	346.77	66.59
Median	31.81	414.9	66.59
Standard Deviation	15.81	187.5	0.01
Maximum Value At Time	2021-05-28	2021-07-22	2021-04-14
Minimum Value At Time	2021-08-28	2021-08-19	2021-04-01
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

Sl No	Time	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
1	2021-04-01	37.70	477.74	66.56
2	2021-04-02	38.52	486.76	66.57
3	2021-04-03	37.22	475.92	66.57
4	2021-04-04	37.65	481.00	66.57
5	2021-04-05	40.38	502.21	66.58
6	2021-04-06	30.97	397.05	66.59
7	2021-04-07	12.90	164.53	66.59
8	2021-04-08	9.66	177.40	66.60
9	2021-04-09	4.05	3.75	66.60
10	2021-04-10	4.67	3.76	66.60
11	2021-04-11	1.08	3.75	66.60

Sl No	Time	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
12	2021-04-12	3.70	25.58	66.61
13	2021-04-13	0.41	11.44	66.61
14	2021-04-14	0.57	3.76	66.62
15	2021-04-15	2.26	3.76	66.61
16	2021-04-16	4.02	3.76	66.60
17	2021-04-17	4.02	3.76	66.60
18	2021-04-18	6.59	94.43	66.59
19	2021-04-19	19.82	387.68	66.59
20	2021-04-20	19.20	385.68	66.60
21	2021-04-21	20.23	408.24	66.58
22	2021-04-22	19.54	397.61	66.58
23	2021-04-23	20.45	414.90	66.59
24	2021-04-24	20.20	411.32	66.59
25	2021-04-25	19.45	401.75	66.59
26	2021-04-26	19.18	404.15	66.59
27	2021-04-27	21.72	440.95	66.59
28	2021-04-28	0.09	3.82	66.60
29	2021-04-29	0.35	3.76	66.61
30	2021-04-30	9.27	200.99	66.61
31	2021-05-01	18.64	382.50	66.60
32	2021-05-02	18.54	380.98	66.59
33	2021-05-03	19.47	390.79	66.59
34	2021-05-04	19.63	393.91	66.59
35	2021-05-05	19.59	383.79	66.59

Sl No	Time	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
36	2021-05-06	19.48	387.04	66.60
37	2021-05-07	19.53	388.64	66.61
38	2021-05-08	19.73	396.48	66.59
39	2021-05-09	18.83	394.02	66.60
40	2021-05-10	18.69	393.19	66.60
41	2021-05-11	19.36	400.61	66.60
42	2021-05-12	19.24	395.78	66.60
43	2021-05-13	19.08	396.89	66.60
44	2021-05-14	19.75	408.37	66.60
45	2021-05-15	19.45	403.11	66.60
46	2021-05-16	18.81	394.25	66.61
47	2021-05-17	15.96	319.04	66.61
48	2021-05-18	12.94	208.03	66.60
49	2021-05-19	4.27	3.76	66.61
50	2021-05-20	2.85	43.36	66.61
51	2021-05-21	18.61	357.74	66.60
52	2021-05-22	18.65	374.59	66.59
53	2021-05-23	18.84	375.39	66.59
54	2021-05-24	19.39	388.07	66.59
55	2021-05-25	19.96	397.69	66.58
56	2021-05-26	19.33	390.17	66.58
57	2021-05-27	37.00	402.71	66.59
58	2021-05-28	47.34	437.33	66.60
59	2021-05-29	45.26	483.41	66.60

Sl No	Time	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
60	2021-05-30	45.04	471.29	66.60
61	2021-05-31	45.80	472.57	66.60
62	2021-06-01	44.61	473.95	66.60
63	2021-06-02	45.50	483.22	66.60
64	2021-06-03	46.16	486.29	66.60
65	2021-06-04	43.30	479.75	66.60
66	2021-06-05	46.71	530.42	66.60
67	2021-06-06	42.68	494.03	66.60
68	2021-06-07	39.33	459.08	66.60
69	2021-06-08	39.75	462.81	66.60
70	2021-06-09	40.53	479.75	66.60
71	2021-06-10	38.85	452.63	66.60
72	2021-06-11	38.57	453.24	66.59
73	2021-06-12	40.16	463.12	66.60
74	2021-06-13	36.40	430.49	66.60
75	2021-06-14	41.16	478.11	66.59
76	2021-06-15	41.49	487.48	66.58
77	2021-06-16	37.52	444.39	66.59
78	2021-06-17	33.47	400.25	66.59
79	2021-06-18	37.66	445.53	66.59
80	2021-06-19	40.04	464.75	66.59
81	2021-06-20	38.83	456.65	66.59
82	2021-06-21	39.75	468.60	66.59
83	2021-06-22	40.54	472.54	66.58

Sl No	Time	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
84	2021-06-23	41.22	480.11	66.59
85	2021-06-24	41.77	489.09	66.59
86	2021-06-25	42.09	486.52	66.60
87	2021-06-26	42.47	487.16	66.60
88	2021-06-27	37.37	446.44	66.60
89	2021-06-28	37.48	442.37	66.59
90	2021-06-29	39.60	462.05	66.59
91	2021-06-30	38.40	451.69	66.60
92	2021-07-01	41.08	480.68	66.59
93	2021-07-02	41.38	484.28	66.58
94	2021-07-03	39.53	462.83	66.58
95	2021-07-04	40.43	472.79	66.58
96	2021-07-05	40.60	470.96	66.58
97	2021-07-06	41.71	484.94	66.59
98	2021-07-07	44.04	502.64	66.59
99	2021-07-08	43.33	497.39	66.59
100	2021-07-09	42.35	488.12	66.60
101	2021-07-10	42.49	486.79	66.60
102	2021-07-11	42.15	483.93	66.59
103	2021-07-12	41.40	481.96	66.59
104	2021-07-13	40.78	477.83	66.59
105	2021-07-14	40.71	475.95	66.59
106	2021-07-15	25.91	309.60	66.59
107	2021-07-16	22.87	291.46	66.60

Sl No	Time	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
108	2021-07-17	46.36	519.66	66.59
109	2021-07-18	44.22	516.50	66.58
110	2021-07-19	36.27	469.58	66.58
111	2021-07-20	36.26	467.76	66.59
112	2021-07-21	39.86	501.78	66.59
113	2021-07-22	44.66	537.68	66.58
114	2021-07-23	39.30	493.60	66.59
115	2021-07-24	37.58	478.21	66.59
116	2021-07-25	20.89	329.31	66.60
117	2021-07-26	8.54	125.99	66.60
118	2021-07-27	4.00	3.74	66.60
119	2021-07-28	3.57	3.75	66.61
120	2021-07-29	11.81	180.70	66.60
121	2021-07-30	37.86	477.68	66.59
122	2021-07-31	39.96	494.18	66.60
123	2021-08-01	43.39	521.46	66.58
124	2021-08-02	43.01	522.45	66.59
125	2021-08-03	42.75	517.97	66.59
126	2021-08-04	37.04	466.94	66.59
127	2021-08-05	31.81	419.17	66.59
128	2021-08-06	22.60	372.86	66.60
129	2021-08-07	6.96	60.09	66.60
130	2021-08-08	42.28	521.36	66.59
131	2021-08-09	41.14	512.42	66.59

Sl No	Time	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
132	2021-08-10	41.73	517.20	66.58
133	2021-08-11	42.06	520.17	66.58
134	2021-08-12	42.31	526.02	66.58
135	2021-08-13	42.58	527.82	66.57
136	2021-08-14	43.68	531.07	66.57
137	2021-08-15	41.71	518.07	66.57
138	2021-08-16	24.90	382.78	66.57
139	2021-08-17	2.96	3.73	66.58
140	2021-08-18	1.95	3.73	66.58
141	2021-08-19	2.76	3.72	66.57
142	2021-08-20	3.82	3.73	66.58
143	2021-08-21	3.87	3.73	66.59
144	2021-08-22	3.92	3.73	66.59
145	2021-08-23	3.90	3.74	66.58
146	2021-08-24	3.90	3.75	66.60
147	2021-08-25	3.05	3.74	66.61
148	2021-08-26	1.48	3.74	66.59
149	2021-08-27	1.57	3.74	66.59
150	2021-08-28	0.02	3.74	66.59
151	2021-08-29	0.02	3.73	66.59
152	2021-08-30	0.02	3.73	66.58
153	2021-08-31	0.02	3.73	66.58



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_31_PCDC_DRI-PM_U
Prescribed Standards	0 - 50
Maximum Data	91.88
Minimum Data	0.96
Geometric Mean	9.35
Median	9.38
Standard Deviation	11.31
Maximum Value At Time	2021-04-09
Minimum Value At Time	2021-06-04
Valid Data Points	146
Total Data Points	153
Data Availability %	95.42%

SI No	Time	Stack_31_PCDC_DRI-PM_U
1	2021-04-01	10.39
2	2021-04-02	10.43
3	2021-04-03	10.26
4	2021-04-04	10.30
5	2021-04-05	10.24
6	2021-04-06	10.23
7	2021-04-07	37.56
8	2021-04-08	84.62
9	2021-04-09	91.88
10	2021-04-10	21.59
11	2021-04-11	10.78
12	2021-04-12	26.10
13	2021-04-13	11.18
14	2021-04-14	32.97
15	2021-04-15	10.34
16	2021-04-16	10.18
17	2021-04-17	9.92
18	2021-04-18	9.97
19	2021-04-19	10.04
20	2021-04-20	10.07
21	2021-04-21	9.90
22	2021-04-22	9.95
23	2021-04-23	9.94
24	2021-04-24	9.88

SI No	Time	Stack_31_PCDC_DRI-PM_U
25	2021-04-25	9.81
26	2021-04-26	9.86
27	2021-04-27	9.91
28	2021-04-28	10.04
29	2021-04-29	9.97
30	2021-04-30	9.87
31	2021-05-01	10.17
32	2021-05-02	10.21
33	2021-05-03	10.22
34	2021-05-04	10.19
35	2021-05-05	10.20
36	2021-05-06	10.12
37	2021-05-07	10.14
38	2021-05-08	10.08
39	2021-05-09	10.18
40	2021-05-10	10.05
41	2021-05-11	10.14
42	2021-05-12	10.08
43	2021-05-13	10.09
44	2021-05-14	10.09
45	2021-05-15	10.08
46	2021-05-16	10.11
47	2021-05-17	10.09
48	2021-05-18	10.10
49	2021-05-19	10.13
50	2021-05-20	10.17
51	2021-05-21	10.34
52	2021-05-22	10.21
53	2021-05-23	10.11
54	2021-05-24	9.13
55	2021-05-25	9.36
56	2021-05-26	9.41
57	2021-05-27	9.70
58	2021-05-28	9.70
59	2021-05-29	9.51
60	2021-05-30	53.68
61	2021-05-31	18.06
62	2021-06-01	8.45
63	2021-06-02	7.03
64	2021-06-03	4.48
65	2021-06-04	0.96

SI No	Time	Stack_31_PCDC_DRI-PM_U
66	2021-06-05	0.99
67	2021-06-06	0.97
68	2021-06-07	0.98
69	2021-06-08	0.98
70	2021-06-09	1.05
71	2021-06-10	1.05
72	2021-06-11	1.95
73	2021-06-12	1.80
74	2021-06-13	1.11
75	2021-06-14	1.78
76	2021-06-15	3.08
77	2021-06-16	3.21
78	2021-06-17	3.42
79	2021-06-18	3.29
80	2021-06-19	3.38
81	2021-06-20	3.13
82	2021-06-21	3.11
83	2021-06-22	9.75
84	2021-06-23	7.78
85	2021-06-24	6.15
86	2021-06-25	5.33
87	2021-06-26	4.28
88	2021-06-27	3.93
89	2021-06-28	4.06
90	2021-06-29	4.16
91	2021-06-30	3.54
92	2021-07-01	4.11
93	2021-07-02	5.78
94	2021-07-03	10.05
95	2021-07-04	6.94
96	2021-07-05	5.56
97	2021-07-06	5.67
98	2021-07-07	4.78
99	2021-07-08	6.89
100	2021-07-09	6.27
101	2021-07-10	5.96
102	2021-07-11	6.53
103	2021-07-12	7.85
104	2021-07-13	6.73
105	2021-07-14	6.61
106	2021-07-15	7.28
107	2021-07-16	7.63

SI No	Time	Stack_31_PCDC_DRI-PM_U
108	2021-07-17	4.26
109	2021-07-18	1.22
110	2021-07-19	1.27
111	2021-07-20	1.36
112	2021-07-21	1.88
113	2021-07-22	1.89
114	2021-07-23	2.16
115	2021-07-24	2.11
116	2021-07-25	2.33
117	2021-07-26	8.61
118	2021-07-27	8.39
119	2021-07-28	9.67
120	2021-07-29	7.68
121	2021-07-30	1.16
122	2021-07-31	1.24
123	2021-08-01	1.25
124	2021-08-02	1.23
125	2021-08-03	1.31
126	2021-08-04	3.88
127	2021-08-05	10.13
128	2021-08-06	10.15
129	2021-08-07	10.33
130	2021-08-08	10.17
131	2021-08-09	10.19
132	2021-08-10	10.12
133	2021-08-11	10.18
134	2021-08-12	10.13
135	2021-08-13	10.09
136	2021-08-14	10.13
137	2021-08-15	10.11
138	2021-08-16	8.22
139	2021-08-17	8.92
140	2021-08-18	8.97
141	2021-08-19	9.07
142	2021-08-20	9.14
143	2021-08-21	9.05
144	2021-08-22	9.08
145	2021-08-23	9.13
146	2021-08-24	9.14
147	2021-08-25	NA
148	2021-08-26	NA

SI No	Time	Stack_31_PCDC_DRI-PM_U
149	2021-08-27	NA
150	2021-08-28	NA
151	2021-08-29	NA
152	2021-08-30	NA
153	2021-08-31	NA

Report Details: JSPLAngul | 2021-09-08 12:04:43 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_9_Reheating_Furnance_Plate_Mill-SO2_U	Stack_9_Reheating_Furnance_Plate_Mill-NOx_U	Stack_9_Reheating_Furnance_Plate_Mill-PM_U
Prescribed Standards	0 -	0 -	0 - 50
Maximum Data	1511.86	1065.42	50.28
Minimum Data	9.28	1.41	13.44
Geometric Mean	674.72	425.79	24.54
Median	612.47	287.01	24.69
Standard Deviation	382.42	371.12	6.03
Maximum Value At Time	2021-06-08	2021-06-12	2021-08-30
Minimum Value At Time	2021-06-20	2021-08-30	2021-04-08
Valid Data Points	150	153	153
Total Data Points	153	153	153
Data Availability %	98.04%	100.0%	100.0%

Sl No	Time	Stack_9_Reheating_Furnance_Plate_Mill-SO2_U	Stack_9_Reheating_Furnance_Plate_Mill-NOx_U	Stack_9_Reheating_Furnance_Plate_Mill-PM_U
1	2021-04-01	1132.23	677.93	18.35
2	2021-04-02	1016.76	658.01	15.60
3	2021-04-03	846.24	637.37	15.70
4	2021-04-04	285.52	562.87	17.23
5	2021-04-05	477.28	602.71	16.05
6	2021-04-06	619.59	613.09	15.48
7	2021-04-07	268.95	564.97	15.09
8	2021-04-08	287.18	578.73	13.44
9	2021-04-09	305.77	592.60	15.31
10	2021-04-10	517.02	605.81	15.77
11	2021-04-11	617.29	641.77	15.86
12	2021-04-12	541.00	637.02	17.14

Sl No	Time	Stack_9_Reheating_Furnance_Plate_Mill-SO2_U	Stack_9_Reheating_Furnance_Plate_Mill-NOx_U	Stack_9_Reheating_Furnance_Plate_Mill-PM_U
13	2021-04-13	572.04	644.47	17.01
14	2021-04-14	454.88	623.14	16.08
15	2021-04-15	455.41	628.07	17.29
16	2021-04-16	612.85	669.83	16.84
17	2021-04-17	626.41	663.86	16.20
18	2021-04-18	644.10	669.11	16.36
19	2021-04-19	729.83	686.94	16.80
20	2021-04-20	776.98	706.30	17.50
21	2021-04-21	776.49	714.70	16.39
22	2021-04-22	742.14	711.29	13.87
23	2021-04-23	580.60	675.90	15.30
24	2021-04-24	704.27	706.57	16.25
25	2021-04-25	841.38	749.93	17.05
26	2021-04-26	883.80	729.59	17.57
27	2021-04-27	930.50	746.13	18.68
28	2021-04-28	957.83	731.92	18.73
29	2021-04-29	989.56	736.98	17.69
30	2021-04-30	997.27	752.46	16.63
31	2021-05-01	1063.79	935.24	19.51
32	2021-05-02	1012.14	825.99	19.05
33	2021-05-03	975.39	769.89	17.95
34	2021-05-04	948.27	811.06	17.63
35	2021-05-05	977.29	810.69	16.16
36	2021-05-06	923.73	806.11	17.40
37	2021-05-07	924.04	797.23	18.07
38	2021-05-08	962.95	803.98	23.62
39	2021-05-09	904.74	778.38	24.81
40	2021-05-10	874.17	773.04	24.69

Sl No	Time	Stack_9_Reheating_Furnance_Plate_Mill-SO2_U	Stack_9_Reheating_Furnance_Plate_Mill-NOx_U	Stack_9_Reheating_Furnance_Plate_Mill-PM_U
41	2021-05-11	912.60	751.45	22.86
42	2021-05-12	860.68	772.69	23.58
43	2021-05-13	839.44	718.76	20.77
44	2021-05-14	778.90	769.67	24.63
45	2021-05-15	765.00	753.42	21.22
46	2021-05-16	810.96	786.32	22.15
47	2021-05-17	883.12	792.03	24.54
48	2021-05-18	937.46	821.56	22.13
49	2021-05-19	982.53	815.44	21.80
50	2021-05-20	1076.06	837.05	20.92
51	2021-05-21	1222.03	870.43	20.20
52	2021-05-22	1110.11	862.42	21.30
53	2021-05-23	1090.94	854.58	23.50
54	2021-05-24	1140.31	857.34	24.16
55	2021-05-25	1168.64	855.33	21.68
56	2021-05-26	1135.34	874.64	22.42
57	2021-05-27	1099.02	882.79	22.01
58	2021-05-28	1047.53	892.82	23.90
59	2021-05-29	1074.18	878.91	23.07
60	2021-05-30	1188.96	907.95	22.81
61	2021-05-31	1393.58	954.16	23.69
62	2021-06-01	1340.72	970.44	24.78
63	2021-06-02	1372.70	978.00	24.22
64	2021-06-03	1368.90	951.66	26.89
65	2021-06-04	1332.50	874.87	27.31
66	2021-06-05	1319.26	951.90	24.70
67	2021-06-06	1300.04	953.94	24.85
68	2021-06-07	1465.31	1003.46	24.16

Sl No	Time	Stack_9_Reheating_Furnance_Plate_Mill-SO2_U	Stack_9_Reheating_Furnance_Plate_Mill-NOx_U	Stack_9_Reheating_Furnance_Plate_Mill-PM_U
69	2021-06-08	1511.86	1015.88	23.77
70	2021-06-09	1461.07	1028.33	24.03
71	2021-06-10	1491.45	1043.99	23.96
72	2021-06-11	1467.95	1024.79	24.42
73	2021-06-12	1490.98	1065.42	24.63
74	2021-06-13	1456.40	1059.06	23.40
75	2021-06-14	1442.40	701.27	25.75
76	2021-06-15	24.10	14.14	26.05
77	2021-06-16	23.25	17.58	25.37
78	2021-06-17	27.54	16.64	24.27
79	2021-06-18	18.68	27.03	24.65
80	2021-06-19	60.54	6.59	27.14
81	2021-06-20	9.28	21.16	28.35
82	2021-06-21	38.20	24.53	27.60
83	2021-06-22	NA	13.39	23.47
84	2021-06-23	NA	9.19	23.71
85	2021-06-24	NA	39.59	24.40
86	2021-06-25	73.05	39.77	24.72
87	2021-06-26	290.97	12.44	24.13
88	2021-06-27	497.00	66.90	23.28
89	2021-06-28	168.62	63.94	23.46
90	2021-06-29	182.96	59.67	25.06
91	2021-06-30	330.27	52.76	25.71
92	2021-07-01	435.02	76.08	25.17
93	2021-07-02	556.38	70.88	24.49
94	2021-07-03	330.44	17.67	27.59
95	2021-07-04	207.27	42.41	27.14
96	2021-07-05	281.56	67.21	26.05

Sl No	Time	Stack_9_Reheating_Furnance_Plate_Mill-SO2_U	Stack_9_Reheating_Furnance_Plate_Mill-NOx_U	Stack_9_Reheating_Furnance_Plate_Mill-PM_U
97	2021-07-06	253.81	67.11	28.08
98	2021-07-07	260.73	55.69	28.15
99	2021-07-08	269.65	47.12	26.04
100	2021-07-09	292.20	47.84	28.50
101	2021-07-10	354.68	83.37	26.21
102	2021-07-11	443.07	89.72	25.19
103	2021-07-12	384.97	71.68	26.87
104	2021-07-13	330.23	47.79	25.80
105	2021-07-14	504.69	90.20	26.73
106	2021-07-15	739.76	123.98	29.42
107	2021-07-16	343.95	110.14	29.34
108	2021-07-17	319.85	127.81	29.90
109	2021-07-18	338.77	113.85	29.44
110	2021-07-19	336.88	112.59	30.06
111	2021-07-20	294.58	40.67	29.91
112	2021-07-21	556.44	287.01	28.70
113	2021-07-22	702.26	300.12	29.41
114	2021-07-23	704.16	246.38	28.53
115	2021-07-24	534.42	130.58	28.37
116	2021-07-25	730.94	156.60	29.59
117	2021-07-26	648.93	141.72	28.75
118	2021-07-27	530.48	113.99	27.54
119	2021-07-28	742.63	135.48	27.70
120	2021-07-29	589.03	115.56	27.76
121	2021-07-30	621.57	125.92	28.31
122	2021-07-31	718.47	99.72	30.05
123	2021-08-01	567.53	84.08	29.82
124	2021-08-02	555.97	75.64	30.91

Sl No	Time	Stack_9_Reheating_Furnance_Plate_Mill-SO2_U	Stack_9_Reheating_Furnance_Plate_Mill-NOx_U	Stack_9_Reheating_Furnance_Plate_Mill-PM_U
125	2021-08-03	604.52	77.19	28.91
126	2021-08-04	505.08	59.42	28.91
127	2021-08-05	340.13	42.63	29.51
128	2021-08-06	467.00	89.87	30.15
129	2021-08-07	413.39	69.03	29.53
130	2021-08-08	402.70	85.40	29.03
131	2021-08-09	357.81	76.58	28.86
132	2021-08-10	347.45	77.34	29.10
133	2021-08-11	282.42	62.13	29.20
134	2021-08-12	197.18	37.72	28.34
135	2021-08-13	194.07	30.67	29.23
136	2021-08-14	226.02	34.37	28.90
137	2021-08-15	265.09	32.22	29.86
138	2021-08-16	287.60	30.11	29.18
139	2021-08-17	453.25	52.64	29.14
140	2021-08-18	596.64	103.33	29.09
141	2021-08-19	564.22	103.28	27.47
142	2021-08-20	553.02	106.87	27.96
143	2021-08-21	558.90	102.90	29.51
144	2021-08-22	545.83	113.46	30.10
145	2021-08-23	620.84	125.09	29.96
146	2021-08-24	612.09	118.92	30.35
147	2021-08-25	620.56	119.58	31.90
148	2021-08-26	638.07	128.00	28.37
149	2021-08-27	551.98	94.57	27.85
150	2021-08-28	408.55	1.45	39.22
151	2021-08-29	417.03	1.43	46.07
152	2021-08-30	424.34	1.41	50.28

SI No	Time	Stack_9_Reheating_Furnance_Plate_Mill-SO2_U	Stack_9_Reheating_Furnance_Plate_Mill-NOx_U	Stack_9_Reheating_Furnance_Plate_Mill-PM_U
153	2021-08-31	429.67	1.41	49.69

Report Details: JSPLAngul | 2021-09-08 11:41:52 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_1_CPP_1_135MW-PM_U	Stack_1_CPP_1_135MW-SO2_U	Stack_1_CPP_1_135MW-NOx_U
Prescribed Standards	0 - 50	0 - 600	0 - 450
Maximum Data	26.52	446.03	293.37
Minimum Data	0.0	0.0	0.0
Geometric Mean	7.62	258.29	176.58
Median	6.12	287.24	174.41
Standard Deviation	5.8	93.1	67.55
Maximum Value At Time	2021-08-20	2021-08-10	2021-07-04
Minimum Value At Time	2021-07-28	2021-08-14	2021-08-14
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_1_CPP_1_135MW-PM_U	Stack_1_CPP_1_135MW-SO2_U	Stack_1_CPP_1_135MW-NOx_U
1	2021-04-01	6.03	299.44	156.31
2	2021-04-02	5.39	302.25	155.24
3	2021-04-03	5.57	249.99	149.96
4	2021-04-04	9.22	273.84	139.40
5	2021-04-05	8.52	176.51	120.78
6	2021-04-06	9.30	176.47	120.78
7	2021-04-07	6.95	176.52	120.77
8	2021-04-08	3.57	176.90	120.81
9	2021-04-09	3.45	176.78	120.88
10	2021-04-10	3.35	176.76	120.86
11	2021-04-11	3.47	176.75	120.84
12	2021-04-12	10.68	157.32	124.03
13	2021-04-13	4.25	122.84	123.62
14	2021-04-14	4.24	136.58	122.90
15	2021-04-15	5.01	139.10	124.93
16	2021-04-16	5.50	221.79	136.76
17	2021-04-17	5.56	348.20	153.55
18	2021-04-18	5.61	349.68	151.53
19	2021-04-19	6.14	337.45	150.62
20	2021-04-20	6.23	350.02	150.38
21	2021-04-21	6.62	294.44	151.12

SI No	Time	Stack_1_CPP_1_135MW-PM_U	Stack_1_CPP_1_135MW-SO2_U	Stack_1_CPP_1_135MW-NOx_U
22	2021-04-22	6.62	288.84	152.18
23	2021-04-23	6.12	174.13	130.61
24	2021-04-24	7.14	272.15	147.66
25	2021-04-25	7.32	280.27	156.54
26	2021-04-26	6.61	281.05	164.46
27	2021-04-27	6.96	287.24	159.00
28	2021-04-28	6.74	317.88	159.58
29	2021-04-29	5.85	341.47	155.68
30	2021-04-30	5.81	343.71	154.88
31	2021-05-01	6.94	341.30	160.33
32	2021-05-02	7.03	317.34	163.43
33	2021-05-03	7.83	293.30	162.30
34	2021-05-04	7.92	300.70	162.83
35	2021-05-05	6.46	305.69	161.52
36	2021-05-06	6.53	343.04	170.58
37	2021-05-07	7.17	343.89	166.40
38	2021-05-08	6.91	335.70	169.64
39	2021-05-09	6.76	332.48	165.27
40	2021-05-10	6.33	341.37	165.02
41	2021-05-11	6.12	336.83	174.94
42	2021-05-12	6.35	325.25	174.30
43	2021-05-13	6.78	316.36	170.99
44	2021-05-14	6.23	305.77	174.41
45	2021-05-15	5.67	308.26	177.96
46	2021-05-16	6.04	348.30	176.67
47	2021-05-17	5.68	349.52	178.62
48	2021-05-18	5.06	362.15	166.02
49	2021-05-19	14.26	141.56	143.31
50	2021-05-20	4.94	141.96	144.62
51	2021-05-21	4.00	142.86	145.86
52	2021-05-22	13.09	230.60	173.52
53	2021-05-23	6.20	348.33	183.72
54	2021-05-24	6.14	340.79	189.55
55	2021-05-25	5.85	350.77	189.81
56	2021-05-26	5.58	332.95	184.66
57	2021-05-27	6.05	316.48	187.97
58	2021-05-28	8.43	314.17	178.81
59	2021-05-29	12.58	151.43	152.43
60	2021-05-30	4.75	152.82	153.81
61	2021-05-31	3.26	155.91	155.92
62	2021-06-01	3.44	155.00	156.22

SI No	Time	Stack_1_CPP_1_135MW-PM_U	Stack_1_CPP_1_135MW-SO2_U	Stack_1_CPP_1_135MW-NOx_U
63	2021-06-02	3.49	153.57	155.95
64	2021-06-03	3.36	155.93	157.05
65	2021-06-04	8.33	299.74	203.03
66	2021-06-05	5.68	405.90	227.86
67	2021-06-06	5.10	420.24	224.47
68	2021-06-07	5.34	417.23	234.00
69	2021-06-08	6.11	427.04	237.10
70	2021-06-09	7.18	414.45	232.34
71	2021-06-10	8.60	408.36	209.32
72	2021-06-11	7.72	404.48	240.25
73	2021-06-12	13.83	282.27	211.29
74	2021-06-13	15.70	138.60	165.46
75	2021-06-14	4.17	140.40	166.19
76	2021-06-15	12.52	224.94	196.08
77	2021-06-16	8.77	353.49	240.31
78	2021-06-17	9.53	334.30	249.66
79	2021-06-18	9.48	339.17	252.10
80	2021-06-19	9.84	327.39	256.56
81	2021-06-20	9.38	344.36	265.05
82	2021-06-21	8.79	358.91	257.94
83	2021-06-22	8.99	337.43	260.36
84	2021-06-23	7.52	339.47	259.93
85	2021-06-24	4.36	293.05	242.01
86	2021-06-25	3.38	137.47	171.78
87	2021-06-26	1.55	140.03	173.77
88	2021-06-27	1.33	140.79	175.66
89	2021-06-28	4.36	185.87	207.57
90	2021-06-29	3.51	306.54	274.80
91	2021-06-30	3.94	171.28	195.29
92	2021-07-01	2.42	144.68	180.18
93	2021-07-02	1.55	143.13	179.98
94	2021-07-03	5.52	230.32	254.00
95	2021-07-04	2.66	269.37	293.37
96	2021-07-05	2.77	281.56	285.43
97	2021-07-06	3.67	294.45	269.52
98	2021-07-07	4.41	288.55	267.91
99	2021-07-08	5.48	304.15	254.90
100	2021-07-09	4.67	294.95	263.43
101	2021-07-10	4.09	298.03	265.50
102	2021-07-11	2.89	251.75	265.78
103	2021-07-12	3.01	255.43	265.79

SI No	Time	Stack_1_CPP_1_135MW-PM_U	Stack_1_CPP_1_135MW-SO2_U	Stack_1_CPP_1_135MW-NOx_U
104	2021-07-13	4.25	251.25	269.10
105	2021-07-14	5.45	260.10	272.95
106	2021-07-15	4.28	189.40	219.18
107	2021-07-16	6.74	293.71	240.04
108	2021-07-17	6.38	326.96	248.73
109	2021-07-18	6.64	336.18	244.12
110	2021-07-19	7.98	296.30	237.62
111	2021-07-20	25.23	200.79	195.70
112	2021-07-21	7.88	200.69	196.03
113	2021-07-22	4.33	202.82	197.31
114	2021-07-23	4.16	204.03	198.52
115	2021-07-24	3.91	204.23	198.79
116	2021-07-25	3.70	205.82	199.75
117	2021-07-26	3.62	208.01	201.10
118	2021-07-27	12.77	206.34	202.48
119	2021-07-28	0.00	208.29	201.55
120	2021-07-29	0.00	209.01	202.03
121	2021-07-30	2.80	209.48	202.69
122	2021-07-31	3.24	210.22	203.48
123	2021-08-01	3.19	209.80	203.68
124	2021-08-02	3.23	211.61	204.85
125	2021-08-03	4.11	212.99	206.37
126	2021-08-04	15.86	302.81	253.86
127	2021-08-05	12.60	332.14	274.64
128	2021-08-06	12.25	342.58	278.54
129	2021-08-07	5.83	262.69	279.95
130	2021-08-08	6.92	272.55	278.41
131	2021-08-09	8.95	326.38	276.20
132	2021-08-10	24.88	446.03	264.37
133	2021-08-11	20.81	422.42	264.26
134	2021-08-12	15.16	302.13	237.60
135	2021-08-13	6.05	101.35	109.21
136	2021-08-14	0.00	0.00	0.00
137	2021-08-15	0.00	0.00	0.00
138	2021-08-16	0.00	0.00	0.00
139	2021-08-17	2.43	29.90	7.72
140	2021-08-18	23.94	295.05	73.55
141	2021-08-19	24.84	306.12	71.15
142	2021-08-20	26.52	326.84	74.09
143	2021-08-21	24.10	297.02	78.89
144	2021-08-22	5.98	73.75	19.98

SI No	Time	Stack_1_CPP_1_135MW-PM_U	Stack_1_CPP_1_135MW-SO2_U	Stack_1_CPP_1_135MW-NOx_U
145	2021-08-23	0.00	0.00	0.00
146	2021-08-24	8.57	105.74	30.14
147	2021-08-25	17.13	211.28	54.91
148	2021-08-26	19.73	243.22	50.25
149	2021-08-27	20.23	249.34	50.70
150	2021-08-28	22.24	274.10	60.04
151	2021-08-29	23.49	289.41	62.71
152	2021-08-30	24.58	302.92	67.71
153	2021-08-31	24.01	295.92	64.42

Report Details: JSPLAngul | 2021-09-08 11:27:55 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_2_CPP_2_135MW-NOx_U	Stack_2_CPP_2_135MW-SO2_U	Stack_2_CPP_2_135MW-PM_U
Prescribed Standards	0 - 450	0 - 600	0 - 50
Maximum Data	190.99	364.31	28.3
Minimum Data	0.0	0.0	0.0
Geometric Mean	112.03	233.08	4.49
Median	133.94	247.85	2.59
Standard Deviation	56.45	97.85	5.45
Maximum Value At Time	2021-06-20	2021-06-10	2021-06-02
Minimum Value At Time	2021-08-14	2021-08-14	2021-08-14
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_2_CPP_2_135MW-NOx_U	Stack_2_CPP_2_135MW-SO2_U	Stack_2_CPP_2_135MW-PM_U
1	2021-04-01	51.41	111.82	1.19
2	2021-04-02	52.92	114.95	1.19
3	2021-04-03	53.30	115.59	1.15
4	2021-04-04	90.25	176.75	16.51
5	2021-04-05	176.90	359.13	13.53
6	2021-04-06	176.77	338.16	4.53
7	2021-04-07	176.82	263.09	2.01
8	2021-04-08	170.12	303.32	2.59
9	2021-04-09	170.51	315.82	3.61
10	2021-04-10	171.83	303.01	12.46
11	2021-04-11	166.45	299.23	7.50
12	2021-04-12	184.55	331.34	3.06
13	2021-04-13	176.20	314.11	5.17
14	2021-04-14	171.30	294.50	3.36
15	2021-04-15	174.93	271.88	5.44
16	2021-04-16	125.68	217.43	4.64
17	2021-04-17	74.71	185.63	4.57
18	2021-04-18	78.34	192.61	3.65
19	2021-04-19	84.52	208.11	8.33
20	2021-04-20	88.41	217.02	6.24
21	2021-04-21	92.20	240.57	13.99

SI No	Time	Stack_2_CPP_2_135MW-NOx_U	Stack_2_CPP_2_135MW-SO2_U	Stack_2_CPP_2_135MW-PM_U
22	2021-04-22	94.53	268.07	3.80
23	2021-04-23	104.11	290.90	4.77
24	2021-04-24	106.16	302.16	8.33
25	2021-04-25	107.71	297.18	5.44
26	2021-04-26	112.14	289.95	6.19
27	2021-04-27	106.28	279.74	9.31
28	2021-04-28	74.17	218.72	7.55
29	2021-04-29	79.69	236.13	6.12
30	2021-04-30	84.22	244.50	7.80
31	2021-05-01	87.42	239.69	9.36
32	2021-05-02	88.45	237.01	9.69
33	2021-05-03	86.32	228.20	9.61
34	2021-05-04	87.57	232.09	9.12
35	2021-05-05	100.13	266.61	8.05
36	2021-05-06	134.73	354.28	9.42
37	2021-05-07	135.88	317.26	8.07
38	2021-05-08	139.13	321.50	5.61
39	2021-05-09	140.59	281.08	4.37
40	2021-05-10	139.72	250.16	3.32
41	2021-05-11	137.82	261.21	4.52
42	2021-05-12	149.22	262.96	3.49
43	2021-05-13	146.63	286.31	4.75
44	2021-05-14	149.20	293.98	5.37
45	2021-05-15	153.14	291.38	5.23
46	2021-05-16	145.22	309.40	8.37
47	2021-05-17	140.45	308.52	10.53
48	2021-05-18	149.70	315.75	7.47
49	2021-05-19	101.00	218.18	26.81
50	2021-05-20	89.20	191.36	21.14
51	2021-05-21	89.62	191.68	2.98
52	2021-05-22	90.04	192.09	1.98
53	2021-05-23	91.49	195.30	1.72
54	2021-05-24	110.96	234.37	23.63
55	2021-05-25	151.23	313.98	13.87
56	2021-05-26	148.82	299.92	11.68
57	2021-05-27	147.87	296.93	7.33
58	2021-05-28	151.02	324.17	15.43
59	2021-05-29	151.21	315.36	16.24
60	2021-05-30	144.09	305.47	15.91
61	2021-05-31	143.06	308.46	2.69
62	2021-06-01	151.72	326.11	11.88

SI No	Time	Stack_2_CPP_2_135MW-NOx_U	Stack_2_CPP_2_135MW-SO2_U	Stack_2_CPP_2_135MW-PM_U
63	2021-06-02	148.53	360.15	28.30
64	2021-06-03	144.52	352.30	4.08
65	2021-06-04	142.82	306.54	5.51
66	2021-06-05	103.58	214.48	13.89
67	2021-06-06	104.77	216.83	2.65
68	2021-06-07	106.95	221.65	0.55
69	2021-06-08	130.62	271.68	8.82
70	2021-06-09	160.93	359.70	5.13
71	2021-06-10	155.01	364.31	2.12
72	2021-06-11	161.61	320.89	4.70
73	2021-06-12	166.38	334.02	6.26
74	2021-06-13	171.79	323.34	3.50
75	2021-06-14	163.64	305.77	5.69
76	2021-06-15	168.58	317.86	5.73
77	2021-06-16	161.77	317.15	8.10
78	2021-06-17	168.20	304.34	3.76
79	2021-06-18	180.76	323.66	2.32
80	2021-06-19	186.06	307.97	1.88
81	2021-06-20	190.99	315.86	2.04
82	2021-06-21	184.16	316.95	2.43
83	2021-06-22	184.97	316.84	2.37
84	2021-06-23	190.41	326.62	3.00
85	2021-06-24	187.15	318.81	2.63
86	2021-06-25	185.83	317.01	5.06
87	2021-06-26	189.92	328.25	6.74
88	2021-06-27	173.97	315.00	6.56
89	2021-06-28	122.97	215.96	20.88
90	2021-06-29	125.99	222.57	4.02
91	2021-06-30	127.52	224.84	1.26
92	2021-07-01	128.08	223.81	0.78
93	2021-07-02	126.88	218.12	0.76
94	2021-07-03	127.89	219.89	0.67
95	2021-07-04	128.89	221.09	0.64
96	2021-07-05	130.75	224.90	0.97
97	2021-07-06	132.90	229.17	1.46
98	2021-07-07	133.94	229.84	1.80
99	2021-07-08	132.87	224.41	1.11
100	2021-07-09	134.09	226.86	0.68
101	2021-07-10	135.63	229.81	0.70
102	2021-07-11	135.82	228.47	0.73
103	2021-07-12	135.67	226.21	0.75

SI No	Time	Stack_2_CPP_2_135MW-NOx_U	Stack_2_CPP_2_135MW-SO2_U	Stack_2_CPP_2_135MW-PM_U
104	2021-07-13	137.16	229.27	0.78
105	2021-07-14	138.37	231.22	0.67
106	2021-07-15	139.36	231.97	0.63
107	2021-07-16	140.65	234.23	0.62
108	2021-07-17	142.59	238.30	0.66
109	2021-07-18	143.48	238.64	0.75
110	2021-07-19	144.24	239.56	0.74
111	2021-07-20	144.61	239.09	0.75
112	2021-07-21	145.06	238.70	0.78
113	2021-07-22	146.39	240.82	0.70
114	2021-07-23	146.97	241.04	0.63
115	2021-07-24	147.56	240.96	0.66
116	2021-07-25	149.30	243.98	0.62
117	2021-07-26	151.10	247.35	0.62
118	2021-07-27	150.63	243.43	0.72
119	2021-07-28	151.99	246.65	0.64
120	2021-07-29	153.11	248.17	0.62
121	2021-07-30	154.13	249.17	0.62
122	2021-07-31	103.95	249.54	0.62
123	2021-08-01	46.71	247.85	0.61
124	2021-08-02	46.71	250.52	0.61
125	2021-08-03	46.72	251.42	0.62
126	2021-08-04	46.73	255.12	0.62
127	2021-08-05	46.72	260.59	0.64
128	2021-08-06	46.72	263.34	0.78
129	2021-08-07	46.72	265.69	0.78
130	2021-08-08	46.72	265.28	0.78
131	2021-08-09	46.72	264.32	0.78
132	2021-08-10	46.73	267.99	0.78
133	2021-08-11	46.73	269.61	0.78
134	2021-08-12	46.73	270.30	0.78
135	2021-08-13	25.18	140.30	0.42
136	2021-08-14	0.00	0.00	0.00
137	2021-08-15	0.00	0.00	0.00
138	2021-08-16	0.00	0.00	0.00
139	2021-08-17	0.00	0.00	0.00
140	2021-08-18	0.00	0.00	0.00
141	2021-08-19	0.00	0.00	0.00
142	2021-08-20	0.00	0.00	0.00
143	2021-08-21	0.00	0.00	0.00
144	2021-08-22	0.00	0.00	0.00

SI No	Time	Stack_2_CPP_2_135MW-NOx_U	Stack_2_CPP_2_135MW-SO2_U	Stack_2_CPP_2_135MW-PM_U
145	2021-08-23	0.00	0.00	0.00
146	2021-08-24	0.00	0.00	0.00
147	2021-08-25	0.00	0.00	0.00
148	2021-08-26	0.00	0.00	0.00
149	2021-08-27	0.00	0.00	0.00
150	2021-08-28	0.00	0.00	0.00
151	2021-08-29	0.00	0.00	0.00
152	2021-08-30	0.00	0.00	0.00
153	2021-08-31	0.00	0.00	0.00

Report Details: JSPLAngul | 2021-09-08 11:29:22 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_3_CPP_3_135MW-PM_U	Stack_3_CPP_3_135MW-SO2_U	Stack_3_CPP_3_135MW-NOx_U
Prescribed Standards	0 - 50	0 - 600	0 - 450
Maximum Data	37.9	514.6	331.57
Minimum Data	0.06	12.53	56.53
Geometric Mean	13.52	288.1	212.15
Median	12.44	306.51	219.95
Standard Deviation	8.87	108.77	64.6
Maximum Value At Time	2021-08-10	2021-08-17	2021-08-28
Minimum Value At Time	2021-04-01	2021-05-26	2021-05-26
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_3_CPP_3_135MW-PM_U	Stack_3_CPP_3_135MW-SO2_U	Stack_3_CPP_3_135MW-NOx_U
1	2021-04-01	0.06	136.29	111.65
2	2021-04-02	0.06	136.29	111.69
3	2021-04-03	0.06	136.73	111.68
4	2021-04-04	0.06	136.97	111.76
5	2021-04-05	0.06	136.88	111.75
6	2021-04-06	16.99	147.25	118.48
7	2021-04-07	18.35	451.81	249.18
8	2021-04-08	13.49	321.87	219.91
9	2021-04-09	12.97	251.13	234.87
10	2021-04-10	12.76	256.10	227.68
11	2021-04-11	9.76	311.78	217.39
12	2021-04-12	9.40	380.78	219.95
13	2021-04-13	8.77	346.56	226.36
14	2021-04-14	10.32	391.77	228.01
15	2021-04-15	7.64	311.93	250.92
16	2021-04-16	7.86	284.92	272.04
17	2021-04-17	6.94	288.05	242.90
18	2021-04-18	6.77	278.69	255.38
19	2021-04-19	7.08	284.73	267.81
20	2021-04-20	7.25	316.52	278.22
21	2021-04-21	6.95	313.59	270.13

SI No	Time	Stack_3_CPP_3_135MW-PM_U	Stack_3_CPP_3_135MW-SO2_U	Stack_3_CPP_3_135MW-NOx_U
22	2021-04-22	6.82	338.49	235.22
23	2021-04-23	6.99	305.76	254.67
24	2021-04-24	7.05	325.38	254.21
25	2021-04-25	6.61	308.03	261.16
26	2021-04-26	6.58	312.14	273.68
27	2021-04-27	6.10	342.91	275.18
28	2021-04-28	6.78	320.95	271.64
29	2021-04-29	6.79	328.55	261.52
30	2021-04-30	7.16	325.98	264.89
31	2021-05-01	6.57	318.41	283.04
32	2021-05-02	6.85	323.63	266.40
33	2021-05-03	6.47	155.80	280.32
34	2021-05-04	6.61	158.17	273.24
35	2021-05-05	7.83	236.65	276.74
36	2021-05-06	6.44	162.72	160.58
37	2021-05-07	6.63	161.95	121.32
38	2021-05-08	7.06	160.92	113.36
39	2021-05-09	6.71	157.75	115.37
40	2021-05-10	6.37	159.20	106.55
41	2021-05-11	6.72	159.46	119.40
42	2021-05-12	6.68	154.11	146.34
43	2021-05-13	6.69	155.28	150.81
44	2021-05-14	6.78	151.77	162.91
45	2021-05-15	6.75	149.73	169.45
46	2021-05-16	6.42	167.28	150.69
47	2021-05-17	6.33	179.95	146.44
48	2021-05-18	6.28	181.14	146.19
49	2021-05-19	6.13	178.45	151.31
50	2021-05-20	6.20	174.42	150.61
51	2021-05-21	9.28	180.26	125.58
52	2021-05-22	9.17	148.99	115.95
53	2021-05-23	10.96	55.99	70.56
54	2021-05-24	10.32	23.38	60.85
55	2021-05-25	6.94	17.06	58.69
56	2021-05-26	0.06	12.53	56.53
57	2021-05-27	0.06	93.32	98.03
58	2021-05-28	1.57	154.97	120.07
59	2021-05-29	26.14	278.34	147.92
60	2021-05-30	12.70	359.14	102.14
61	2021-05-31	12.39	376.37	100.60
62	2021-06-01	12.54	301.25	99.06

SI No	Time	Stack_3_CPP_3_135MW-PM_U	Stack_3_CPP_3_135MW-SO2_U	Stack_3_CPP_3_135MW-NOx_U
63	2021-06-02	12.57	331.06	96.00
64	2021-06-03	12.23	305.86	101.06
65	2021-06-04	12.69	317.96	145.40
66	2021-06-05	12.34	324.81	179.72
67	2021-06-06	12.52	333.87	191.54
68	2021-06-07	12.65	345.68	177.75
69	2021-06-08	7.89	332.03	202.74
70	2021-06-09	6.42	356.68	186.94
71	2021-06-10	6.38	504.01	160.89
72	2021-06-11	6.73	471.04	193.33
73	2021-06-12	6.45	452.01	207.35
74	2021-06-13	6.58	290.19	204.29
75	2021-06-14	6.42	211.35	190.21
76	2021-06-15	12.25	156.96	175.70
77	2021-06-16	19.54	320.32	198.70
78	2021-06-17	19.56	322.63	207.81
79	2021-06-18	20.64	336.44	198.95
80	2021-06-19	19.37	303.37	203.27
81	2021-06-20	19.13	315.66	205.34
82	2021-06-21	18.71	304.78	208.38
83	2021-06-22	18.93	297.61	166.37
84	2021-06-23	11.70	279.60	149.69
85	2021-06-24	12.17	344.35	186.58
86	2021-06-25	13.60	354.85	174.85
87	2021-06-26	18.31	334.14	194.67
88	2021-06-27	7.42	322.35	205.15
89	2021-06-28	12.27	307.68	199.26
90	2021-06-29	12.63	309.70	212.25
91	2021-06-30	17.66	293.66	220.96
92	2021-07-01	13.43	277.41	225.47
93	2021-07-02	13.49	262.13	221.74
94	2021-07-03	19.22	246.79	227.13
95	2021-07-04	17.12	342.17	209.44
96	2021-07-05	13.10	493.47	198.90
97	2021-07-06	11.61	368.85	181.67
98	2021-07-07	13.10	290.86	205.45
99	2021-07-08	12.62	313.81	196.03
100	2021-07-09	12.76	300.17	196.34
101	2021-07-10	13.59	306.51	197.07
102	2021-07-11	12.79	267.56	197.29
103	2021-07-12	12.55	301.02	223.89

SI No	Time	Stack_3_CPP_3_135MW-PM_U	Stack_3_CPP_3_135MW-SO2_U	Stack_3_CPP_3_135MW-NOx_U
104	2021-07-13	12.79	304.43	216.15
105	2021-07-14	12.46	307.19	213.02
106	2021-07-15	6.19	324.43	200.55
107	2021-07-16	6.49	310.10	207.76
108	2021-07-17	11.51	339.10	204.98
109	2021-07-18	13.21	373.98	221.82
110	2021-07-19	12.50	274.61	221.55
111	2021-07-20	12.36	165.47	238.58
112	2021-07-21	12.89	389.30	225.24
113	2021-07-22	13.51	329.60	232.49
114	2021-07-23	12.44	315.20	230.72
115	2021-07-24	12.67	296.14	225.06
116	2021-07-25	12.41	262.57	236.93
117	2021-07-26	12.46	167.23	230.03
118	2021-07-27	12.23	155.13	221.67
119	2021-07-28	12.20	280.70	234.24
120	2021-07-29	13.43	375.44	252.62
121	2021-07-30	13.15	226.70	248.29
122	2021-07-31	13.54	175.10	243.68
123	2021-08-01	14.14	167.06	249.89
124	2021-08-02	13.81	175.99	257.78
125	2021-08-03	13.62	175.08	269.28
126	2021-08-04	13.60	171.99	266.90
127	2021-08-05	13.08	164.74	267.70
128	2021-08-06	13.47	171.25	274.13
129	2021-08-07	12.97	186.83	279.74
130	2021-08-08	12.73	184.62	275.84
131	2021-08-09	18.20	242.13	269.05
132	2021-08-10	37.90	503.57	290.25
133	2021-08-11	37.20	416.17	291.72
134	2021-08-12	31.28	390.99	292.56
135	2021-08-13	31.28	418.01	280.93
136	2021-08-14	28.84	425.14	291.37
137	2021-08-15	32.07	472.70	302.23
138	2021-08-16	31.76	468.17	292.77
139	2021-08-17	34.90	514.60	287.59
140	2021-08-18	30.54	450.31	284.30
141	2021-08-19	32.01	472.00	290.77
142	2021-08-20	30.76	453.54	290.15
143	2021-08-21	28.20	415.80	285.48
144	2021-08-22	24.79	365.47	292.37

SI No	Time	Stack_3_CPP_3_135MW-PM_U	Stack_3_CPP_3_135MW-SO2_U	Stack_3_CPP_3_135MW-NOx_U
145	2021-08-23	28.41	418.90	289.72
146	2021-08-24	31.58	465.66	296.71
147	2021-08-25	32.87	484.65	307.47
148	2021-08-26	32.63	451.23	302.17
149	2021-08-27	31.54	387.61	328.80
150	2021-08-28	33.72	414.40	331.57
151	2021-08-29	33.31	409.47	316.71
152	2021-08-30	33.15	407.37	320.69
153	2021-08-31	35.17	432.16	314.74

Report Details: JSPLAngul | 2021-09-08 11:30:50 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_4_CPP_4_135MW-NOx_U	Stack_4_CPP_4_135MW-SO2_U	Stack_4_CPP_4_135MW-PM_U
Prescribed Standards	0 - 450	0 - 600	0 - 50
Maximum Data	284.14	540.8	35.91
Minimum Data	0.51	0.21	0.12
Geometric Mean	167.39	281.05	13.61
Median	156.51	289.94	12.1
Standard Deviation	72.82	105.02	9.24
Maximum Value At Time	2021-08-15	2021-08-10	2021-08-10
Minimum Value At Time	2021-04-14	2021-08-29	2021-08-29
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_4_CPP_4_135MW-NOx_U	Stack_4_CPP_4_135MW-SO2_U	Stack_4_CPP_4_135MW-PM_U
1	2021-04-01	193.99	360.49	12.12
2	2021-04-02	192.83	353.13	12.68
3	2021-04-03	197.48	334.34	13.06
4	2021-04-04	201.79	282.40	14.00
5	2021-04-05	205.03	274.68	12.81
6	2021-04-06	205.64	274.80	11.71
7	2021-04-07	195.24	270.01	14.62
8	2021-04-08	196.77	265.04	14.53
9	2021-04-09	198.11	222.12	13.49
10	2021-04-10	199.15	223.19	13.47
11	2021-04-11	200.49	225.30	11.27
12	2021-04-12	201.02	226.76	14.31
13	2021-04-13	192.05	215.52	15.48
14	2021-04-14	0.51	0.56	24.92
15	2021-04-15	32.95	59.79	27.07
16	2021-04-16	67.70	94.40	29.41
17	2021-04-17	42.14	81.92	17.61
18	2021-04-18	37.12	48.82	12.59
19	2021-04-19	41.13	73.46	14.15
20	2021-04-20	46.79	141.23	16.35
21	2021-04-21	51.10	144.36	13.54

SI No	Time	Stack_4_CPP_4_135MW-NOx_U	Stack_4_CPP_4_135MW-SO2_U	Stack_4_CPP_4_135MW-PM_U
22	2021-04-22	52.56	117.66	11.81
23	2021-04-23	57.25	94.89	16.98
24	2021-04-24	66.70	119.13	19.13
25	2021-04-25	76.33	214.00	21.56
26	2021-04-26	79.57	288.01	23.98
27	2021-04-27	64.51	238.24	12.03
28	2021-04-28	37.07	139.68	23.28
29	2021-04-29	47.99	129.72	19.34
30	2021-04-30	58.82	130.69	13.70
31	2021-05-01	61.98	134.80	25.28
32	2021-05-02	57.05	125.08	24.26
33	2021-05-03	57.25	117.33	21.81
34	2021-05-04	45.97	101.12	28.46
35	2021-05-05	61.33	163.79	21.52
36	2021-05-06	90.26	318.01	22.51
37	2021-05-07	99.21	361.24	21.92
38	2021-05-08	78.91	233.55	21.57
39	2021-05-09	89.89	260.38	24.97
40	2021-05-10	93.63	301.71	24.15
41	2021-05-11	93.75	254.27	17.37
42	2021-05-12	92.28	228.82	24.91
43	2021-05-13	101.17	238.10	23.14
44	2021-05-14	117.27	258.30	27.97
45	2021-05-15	123.93	287.99	17.19
46	2021-05-16	124.24	310.30	14.16
47	2021-05-17	125.34	258.62	14.45
48	2021-05-18	129.04	229.88	13.59
49	2021-05-19	128.11	232.83	17.34
50	2021-05-20	129.84	233.11	14.80
51	2021-05-21	127.73	289.94	25.11
52	2021-05-22	131.41	281.94	25.46
53	2021-05-23	139.53	297.98	13.52
54	2021-05-24	153.88	312.16	12.10
55	2021-05-25	139.90	271.63	12.08
56	2021-05-26	116.65	212.95	12.29
57	2021-05-27	111.17	199.16	11.87
58	2021-05-28	117.03	242.19	13.28
59	2021-05-29	125.54	287.90	5.46
60	2021-05-30	106.79	221.35	4.78
61	2021-05-31	108.31	252.10	1.45
62	2021-06-01	114.52	278.52	1.60

SI No	Time	Stack_4_CPP_4_135MW-NOx_U	Stack_4_CPP_4_135MW-SO2_U	Stack_4_CPP_4_135MW-PM_U
63	2021-06-02	113.36	272.69	1.40
64	2021-06-03	119.08	301.67	1.41
65	2021-06-04	144.96	399.08	1.64
66	2021-06-05	150.75	430.47	3.34
67	2021-06-06	156.51	443.14	5.13
68	2021-06-07	166.55	456.47	6.35
69	2021-06-08	170.17	449.52	13.16
70	2021-06-09	157.39	415.65	15.22
71	2021-06-10	154.50	420.82	5.34
72	2021-06-11	167.25	425.72	10.06
73	2021-06-12	170.44	435.15	9.87
74	2021-06-13	169.00	422.85	10.64
75	2021-06-14	171.49	418.74	7.79
76	2021-06-15	174.43	430.44	4.05
77	2021-06-16	177.51	417.82	4.19
78	2021-06-17	176.53	413.03	4.77
79	2021-06-18	178.05	418.27	3.48
80	2021-06-19	168.11	350.29	11.67
81	2021-06-20	135.74	220.01	34.68
82	2021-06-21	136.48	229.34	4.19
83	2021-06-22	135.88	231.42	0.56
84	2021-06-23	140.49	250.17	9.51
85	2021-06-24	147.90	310.70	6.82
86	2021-06-25	147.45	313.99	9.64
87	2021-06-26	148.62	306.13	7.93
88	2021-06-27	148.10	296.23	7.45
89	2021-06-28	149.60	304.76	8.37
90	2021-06-29	151.95	309.72	6.40
91	2021-06-30	155.66	314.80	7.91
92	2021-07-01	158.35	319.58	6.46
93	2021-07-02	154.07	301.67	6.97
94	2021-07-03	142.90	252.13	24.37
95	2021-07-04	145.00	258.64	10.61
96	2021-07-05	157.75	348.80	6.00
97	2021-07-06	156.19	358.14	7.11
98	2021-07-07	145.93	300.32	6.53
99	2021-07-08	145.73	276.10	9.82
100	2021-07-09	147.06	273.32	6.80
101	2021-07-10	151.47	280.10	7.43
102	2021-07-11	151.28	275.87	8.95
103	2021-07-12	152.53	270.76	12.40

SI No	Time	Stack_4_CPP_4_135MW-NOx_U	Stack_4_CPP_4_135MW-SO2_U	Stack_4_CPP_4_135MW-PM_U
104	2021-07-13	155.11	250.65	10.12
105	2021-07-14	156.65	252.77	11.23
106	2021-07-15	157.78	252.12	21.57
107	2021-07-16	159.36	251.56	9.40
108	2021-07-17	173.17	289.69	7.86
109	2021-07-18	233.49	406.44	8.12
110	2021-07-19	238.09	347.10	4.78
111	2021-07-20	242.88	331.83	3.38
112	2021-07-21	241.52	323.51	6.36
113	2021-07-22	247.86	330.56	8.46
114	2021-07-23	245.65	327.95	0.86
115	2021-07-24	235.95	321.83	0.54
116	2021-07-25	239.38	330.75	0.52
117	2021-07-26	245.14	342.37	0.52
118	2021-07-27	234.40	323.46	0.55
119	2021-07-28	232.62	316.65	0.52
120	2021-07-29	234.83	319.16	3.17
121	2021-07-30	235.81	319.20	17.72
122	2021-07-31	238.67	270.52	3.92
123	2021-08-01	246.98	284.25	6.69
124	2021-08-02	251.50	291.28	6.62
125	2021-08-03	251.37	291.75	5.24
126	2021-08-04	257.37	299.20	5.21
127	2021-08-05	262.76	298.08	5.09
128	2021-08-06	266.73	299.06	4.14
129	2021-08-07	269.99	294.41	4.04
130	2021-08-08	272.50	303.84	6.91
131	2021-08-09	275.79	345.38	11.04
132	2021-08-10	278.90	540.80	35.91
133	2021-08-11	280.63	510.46	26.06
134	2021-08-12	281.72	507.29	17.35
135	2021-08-13	281.39	439.44	29.29
136	2021-08-14	283.28	363.76	29.72
137	2021-08-15	284.14	404.16	33.00
138	2021-08-16	274.88	387.98	31.69
139	2021-08-17	256.90	378.39	30.91
140	2021-08-18	258.33	393.69	32.15
141	2021-08-19	259.14	397.71	32.48
142	2021-08-20	257.99	359.86	29.40
143	2021-08-21	261.41	323.43	26.43
144	2021-08-22	266.72	328.24	26.82

SI No	Time	Stack_4_CPP_4_135MW-NOx_U	Stack_4_CPP_4_135MW-SO2_U	Stack_4_CPP_4_135MW-PM_U
145	2021-08-23	272.56	330.86	27.04
146	2021-08-24	274.65	353.59	28.88
147	2021-08-25	279.32	363.71	29.71
148	2021-08-26	279.44	328.55	26.85
149	2021-08-27	275.24	240.14	19.65
150	2021-08-28	268.39	66.40	5.51
151	2021-08-29	268.84	0.21	0.12
152	2021-08-30	268.93	0.23	0.12
153	2021-08-31	269.36	0.22	0.12

Report Details: JSPLAngul | 2021-09-08 11:32:37 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_5_CPP_5_135MW-NOx_U	Stack_5_CPP_5_135MW-SO2_U	Stack_5_CPP_5_135MW-PM_U
Prescribed Standards	0 - 450	0 - 600	0 - 50
Maximum Data	250.61	485.44	146.95
Minimum Data	1.03	0.13	0.66
Geometric Mean	48.65	130.34	9.7
Median	37.58	42.64	0.75
Standard Deviation	38.33	156.36	19.97
Maximum Value At Time	2021-08-15	2021-08-29	2021-07-21
Minimum Value At Time	2021-07-17	2021-04-07	2021-07-15
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_5_CPP_5_135MW-NOx_U	Stack_5_CPP_5_135MW-SO2_U	Stack_5_CPP_5_135MW-PM_U
1	2021-04-01	55.40	301.17	5.40
2	2021-04-02	55.40	300.89	5.77
3	2021-04-03	55.42	292.71	12.66
4	2021-04-04	53.53	236.12	16.71
5	2021-04-05	30.08	170.54	18.91
6	2021-04-06	30.98	199.83	2.56
7	2021-04-07	1.06	0.13	1.07
8	2021-04-08	1.16	0.13	1.06
9	2021-04-09	1.34	0.13	0.97
10	2021-04-10	1.34	0.13	0.96
11	2021-04-11	12.86	76.66	1.95
12	2021-04-12	59.14	387.09	2.32
13	2021-04-13	59.13	387.01	2.58
14	2021-04-14	42.08	254.09	1.61
15	2021-04-15	9.45	0.13	1.04
16	2021-04-16	9.45	0.13	1.27
17	2021-04-17	9.45	0.13	1.07
18	2021-04-18	9.45	0.13	0.96
19	2021-04-19	9.60	1.48	0.80
20	2021-04-20	9.02	0.19	0.78
21	2021-04-21	13.52	0.13	0.77

SI No	Time	Stack_5_CPP_5_135MW-NOx_U	Stack_5_CPP_5_135MW-SO2_U	Stack_5_CPP_5_135MW-PM_U
22	2021-04-22	13.51	0.13	0.76
23	2021-04-23	13.53	0.14	0.79
24	2021-04-24	13.52	0.13	0.75
25	2021-04-25	13.52	0.17	0.75
26	2021-04-26	13.52	0.16	0.77
27	2021-04-27	14.28	0.38	0.77
28	2021-04-28	16.01	0.49	0.76
29	2021-04-29	16.01	0.51	0.76
30	2021-04-30	16.01	0.28	0.76
31	2021-05-01	16.01	0.19	0.76
32	2021-05-02	16.01	0.24	0.75
33	2021-05-03	16.01	0.41	0.74
34	2021-05-04	18.92	1.28	0.73
35	2021-05-05	25.17	7.70	0.72
36	2021-05-06	28.03	21.63	0.71
37	2021-05-07	28.19	22.00	0.71
38	2021-05-08	28.13	21.85	0.70
39	2021-05-09	28.11	21.78	0.70
40	2021-05-10	28.19	21.99	0.70
41	2021-05-11	28.19	22.00	0.70
42	2021-05-12	28.19	22.00	0.69
43	2021-05-13	28.19	22.00	0.69
44	2021-05-14	28.20	22.00	0.69
45	2021-05-15	28.19	22.00	0.69
46	2021-05-16	28.19	22.00	0.69
47	2021-05-17	28.20	22.01	0.69
48	2021-05-18	28.20	21.92	0.69
49	2021-05-19	33.02	32.72	0.69
50	2021-05-20	37.46	42.64	0.69
51	2021-05-21	37.47	42.64	0.70
52	2021-05-22	37.47	42.64	0.70
53	2021-05-23	37.45	42.63	0.69
54	2021-05-24	37.39	42.63	0.69
55	2021-05-25	37.36	42.63	0.72
56	2021-05-26	37.37	42.63	0.73
57	2021-05-27	37.54	42.64	0.72
58	2021-05-28	37.67	42.65	0.69
59	2021-05-29	37.88	42.64	0.69
60	2021-05-30	37.82	42.64	0.69
61	2021-05-31	37.74	42.64	0.73
62	2021-06-01	37.78	42.64	0.70

SI No	Time	Stack_5_CPP_5_135MW-NOx_U	Stack_5_CPP_5_135MW-SO2_U	Stack_5_CPP_5_135MW-PM_U
63	2021-06-02	37.89	42.63	0.70
64	2021-06-03	37.85	42.64	0.69
65	2021-06-04	37.83	42.64	0.69
66	2021-06-05	37.68	42.63	0.69
67	2021-06-06	37.74	42.63	0.69
68	2021-06-07	37.79	42.63	0.69
69	2021-06-08	37.80	42.63	0.69
70	2021-06-09	37.74	42.64	0.70
71	2021-06-10	37.62	42.64	0.69
72	2021-06-11	37.59	42.64	0.69
73	2021-06-12	37.57	42.63	0.69
74	2021-06-13	37.58	42.63	0.69
75	2021-06-14	37.58	42.63	0.69
76	2021-06-15	37.58	42.36	0.69
77	2021-06-16	37.58	42.60	0.69
78	2021-06-17	37.57	42.63	0.69
79	2021-06-18	37.59	42.64	0.69
80	2021-06-19	37.59	42.64	0.69
81	2021-06-20	37.58	42.64	0.69
82	2021-06-21	37.57	42.64	0.69
83	2021-06-22	37.59	42.63	0.69
84	2021-06-23	37.70	42.63	0.69
85	2021-06-24	37.72	42.64	0.69
86	2021-06-25	37.72	42.64	0.68
87	2021-06-26	37.65	42.64	0.68
88	2021-06-27	37.59	42.64	0.68
89	2021-06-28	37.58	42.64	0.69
90	2021-06-29	37.52	42.64	0.69
91	2021-06-30	37.48	42.63	0.69
92	2021-07-01	37.51	42.64	0.69
93	2021-07-02	37.57	42.64	0.69
94	2021-07-03	37.57	42.63	0.69
95	2021-07-04	37.57	42.63	0.69
96	2021-07-05	37.58	42.63	0.69
97	2021-07-06	37.55	42.63	0.68
98	2021-07-07	37.53	42.63	0.69
99	2021-07-08	37.58	42.64	0.69
100	2021-07-09	37.58	42.64	0.69
101	2021-07-10	37.58	42.64	0.69
102	2021-07-11	37.58	42.64	0.69
103	2021-07-12	37.56	42.64	0.69

SI No	Time	Stack_5_CPP_5_135MW-NOx_U	Stack_5_CPP_5_135MW-SO2_U	Stack_5_CPP_5_135MW-PM_U
104	2021-07-13	37.55	42.63	0.68
105	2021-07-14	37.57	42.64	0.68
106	2021-07-15	28.21	31.67	0.66
107	2021-07-16	1.04	0.15	0.70
108	2021-07-17	1.03	0.15	20.04
109	2021-07-18	1.03	0.14	52.97
110	2021-07-19	1.03	0.14	67.51
111	2021-07-20	1.05	0.14	137.73
112	2021-07-21	45.14	143.41	146.95
113	2021-07-22	90.45	473.64	4.12
114	2021-07-23	65.36	398.85	8.12
115	2021-07-24	75.67	333.51	13.68
116	2021-07-25	91.90	342.64	14.95
117	2021-07-26	92.01	283.66	15.23
118	2021-07-27	71.16	239.25	13.87
119	2021-07-28	74.90	215.31	13.01
120	2021-07-29	100.03	214.18	12.86
121	2021-07-30	93.86	235.89	12.77
122	2021-07-31	80.31	246.31	14.54
123	2021-08-01	80.70	247.21	9.30
124	2021-08-02	84.42	299.28	8.57
125	2021-08-03	75.35	301.84	9.07
126	2021-08-04	70.96	241.75	9.76
127	2021-08-05	81.63	234.64	10.43
128	2021-08-06	82.94	243.87	11.70
129	2021-08-07	84.30	267.37	13.57
130	2021-08-08	82.35	252.15	14.19
131	2021-08-09	92.05	268.07	18.05
132	2021-08-10	89.43	450.55	24.01
133	2021-08-11	85.72	383.34	23.22
134	2021-08-12	90.73	435.26	10.42
135	2021-08-13	138.79	403.81	27.24
136	2021-08-14	216.71	390.21	31.80
137	2021-08-15	250.61	454.19	37.01
138	2021-08-16	157.36	408.06	33.25
139	2021-08-17	102.18	416.01	33.91
140	2021-08-18	109.07	436.89	35.60
141	2021-08-19	110.70	444.76	36.24
142	2021-08-20	111.00	445.51	36.31
143	2021-08-21	48.45	195.58	15.96
144	2021-08-22	76.21	310.08	25.28

SI No	Time	Stack_5_CPP_5_135MW-NOx_U	Stack_5_CPP_5_135MW-SO2_U	Stack_5_CPP_5_135MW-PM_U
145	2021-08-23	98.11	396.23	32.30
146	2021-08-24	108.51	437.78	35.68
147	2021-08-25	105.04	446.48	36.39
148	2021-08-26	107.72	428.07	34.89
149	2021-08-27	99.43	405.01	33.01
150	2021-08-28	116.10	481.30	39.22
151	2021-08-29	114.59	485.44	39.56
152	2021-08-30	96.65	405.93	33.08
153	2021-08-31	105.82	439.68	35.83

Report Details: JSPLAngul | 2021-09-08 11:34:03 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_6_CPP_6_135MW-PM_U	Stack_6_CPP_6_135MW-NOx_U	Stack_6_CPP_6_135MW-SO2_U
Prescribed Standards	0 - 50	0 - 450	0 - 600
Maximum Data	89.63	210.59	451.61
Minimum Data	0.41	29.07	64.75
Geometric Mean	15.43	100.9	288.46
Median	14.01	101.89	291.07
Standard Deviation	9.8	31.06	83.26
Maximum Value At Time	2021-07-16	2021-08-14	2021-08-10
Minimum Value At Time	2021-08-11	2021-06-06	2021-07-17
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_6_CPP_6_135MW-PM_U	Stack_6_CPP_6_135MW-NOx_U	Stack_6_CPP_6_135MW-SO2_U
1	2021-04-01	16.21	110.93	270.90
2	2021-04-02	20.81	93.87	300.29
3	2021-04-03	12.32	87.56	306.02
4	2021-04-04	17.10	97.30	284.05
5	2021-04-05	21.88	106.67	257.77
6	2021-04-06	17.59	101.76	226.78
7	2021-04-07	10.12	88.57	191.14
8	2021-04-08	15.34	47.63	137.57
9	2021-04-09	8.05	33.51	118.33
10	2021-04-10	12.30	69.61	192.78
11	2021-04-11	7.01	75.73	247.85
12	2021-04-12	8.67	73.40	263.17
13	2021-04-13	7.83	76.05	255.06
14	2021-04-14	7.01	67.78	254.73
15	2021-04-15	9.48	65.97	276.31
16	2021-04-16	16.08	76.69	275.65
17	2021-04-17	15.01	72.11	318.64
18	2021-04-18	14.27	68.68	301.74
19	2021-04-19	20.52	86.96	333.98
20	2021-04-20	19.65	104.08	429.00
21	2021-04-21	20.98	101.30	230.95

SI No	Time	Stack_6_CPP_6_135MW-PM_U	Stack_6_CPP_6_135MW-NOx_U	Stack_6_CPP_6_135MW-SO2_U
22	2021-04-22	14.04	94.13	185.63
23	2021-04-23	8.22	113.60	173.66
24	2021-04-24	13.39	111.95	180.68
25	2021-04-25	23.28	104.84	280.79
26	2021-04-26	11.78	118.51	284.54
27	2021-04-27	8.96	110.23	292.84
28	2021-04-28	12.67	104.87	271.43
29	2021-04-29	9.24	101.89	267.30
30	2021-04-30	12.20	97.11	276.96
31	2021-05-01	12.96	115.62	262.92
32	2021-05-02	14.71	101.54	276.33
33	2021-05-03	11.78	99.23	278.95
34	2021-05-04	17.09	95.78	282.82
35	2021-05-05	20.84	90.89	294.82
36	2021-05-06	21.80	113.15	335.83
37	2021-05-07	17.53	114.34	338.82
38	2021-05-08	20.59	107.74	338.96
39	2021-05-09	23.87	120.95	301.52
40	2021-05-10	23.41	107.27	257.86
41	2021-05-11	19.25	109.74	250.73
42	2021-05-12	12.47	126.09	254.95
43	2021-05-13	9.04	125.81	271.75
44	2021-05-14	7.69	138.75	267.10
45	2021-05-15	7.58	143.51	255.03
46	2021-05-16	9.70	130.52	286.12
47	2021-05-17	11.73	83.86	198.41
48	2021-05-18	15.42	42.76	102.39
49	2021-05-19	17.87	93.15	211.62
50	2021-05-20	18.28	144.11	295.10
51	2021-05-21	7.70	144.08	298.45
52	2021-05-22	20.90	143.48	286.58
53	2021-05-23	24.65	143.58	277.57
54	2021-05-24	20.69	150.85	269.14
55	2021-05-25	12.90	153.23	268.58
56	2021-05-26	7.24	110.41	214.78
57	2021-05-27	8.64	111.21	234.89
58	2021-05-28	18.65	126.59	340.40
59	2021-05-29	20.03	126.25	361.90
60	2021-05-30	15.86	117.75	346.59
61	2021-05-31	21.08	114.63	335.85
62	2021-06-01	10.13	87.51	231.72

SI No	Time	Stack_6_CPP_6_135MW-PM_U	Stack_6_CPP_6_135MW-NOx_U	Stack_6_CPP_6_135MW-SO2_U
63	2021-06-02	4.57	58.65	161.91
64	2021-06-03	16.96	112.67	336.12
65	2021-06-04	20.89	85.23	221.42
66	2021-06-05	20.44	29.27	65.42
67	2021-06-06	1.00	29.07	66.67
68	2021-06-07	6.41	38.94	82.95
69	2021-06-08	26.03	112.91	367.06
70	2021-06-09	24.74	101.15	390.74
71	2021-06-10	20.01	91.92	404.92
72	2021-06-11	22.82	105.74	381.49
73	2021-06-12	26.91	113.47	360.72
74	2021-06-13	22.39	81.45	231.81
75	2021-06-14	25.69	95.97	360.19
76	2021-06-15	26.33	121.02	383.04
77	2021-06-16	13.35	118.18	402.20
78	2021-06-17	13.14	113.35	379.54
79	2021-06-18	19.71	109.58	368.37
80	2021-06-19	10.68	118.25	351.39
81	2021-06-20	10.32	110.86	386.24
82	2021-06-21	6.87	112.24	401.76
83	2021-06-22	19.49	120.19	403.80
84	2021-06-23	11.65	120.19	404.11
85	2021-06-24	1.24	120.19	404.12
86	2021-06-25	14.33	120.19	382.79
87	2021-06-26	16.55	113.46	370.54
88	2021-06-27	13.95	122.11	344.95
89	2021-06-28	13.34	128.44	323.61
90	2021-06-29	26.82	139.18	336.18
91	2021-06-30	20.96	146.07	339.27
92	2021-07-01	13.31	139.56	329.69
93	2021-07-02	17.55	154.40	329.68
94	2021-07-03	12.98	109.33	248.92
95	2021-07-04	12.41	78.03	196.05
96	2021-07-05	4.23	78.04	195.88
97	2021-07-06	16.87	115.77	287.30
98	2021-07-07	21.34	136.22	309.41
99	2021-07-08	7.67	118.40	321.25
100	2021-07-09	5.16	125.95	316.93
101	2021-07-10	3.59	104.34	286.02
102	2021-07-11	6.78	68.61	131.92
103	2021-07-12	5.98	76.18	143.71

SI No	Time	Stack_6_CPP_6_135MW-PM_U	Stack_6_CPP_6_135MW-NOx_U	Stack_6_CPP_6_135MW-SO2_U
104	2021-07-13	6.47	67.19	148.10
105	2021-07-14	14.01	70.51	155.47
106	2021-07-15	25.09	82.05	190.18
107	2021-07-16	89.63	51.89	64.83
108	2021-07-17	6.00	52.56	64.75
109	2021-07-18	9.87	55.05	66.55
110	2021-07-19	13.53	135.51	270.09
111	2021-07-20	6.09	145.07	276.38
112	2021-07-21	11.39	135.94	338.06
113	2021-07-22	6.84	141.14	337.62
114	2021-07-23	9.01	145.49	334.53
115	2021-07-24	4.38	141.39	319.34
116	2021-07-25	4.01	142.07	310.92
117	2021-07-26	13.69	128.32	313.22
118	2021-07-27	5.62	128.70	287.41
119	2021-07-28	7.63	134.24	294.52
120	2021-07-29	2.68	144.88	273.76
121	2021-07-30	6.05	86.90	238.81
122	2021-07-31	8.19	80.16	256.43
123	2021-08-01	9.72	101.40	291.07
124	2021-08-02	5.27	84.75	310.14
125	2021-08-03	5.27	78.34	261.20
126	2021-08-04	4.17	68.37	288.89
127	2021-08-05	5.75	67.27	279.07
128	2021-08-06	6.05	72.01	298.80
129	2021-08-07	5.89	67.58	287.81
130	2021-08-08	5.61	48.95	386.03
131	2021-08-09	18.63	48.67	451.58
132	2021-08-10	1.24	48.68	451.61
133	2021-08-11	0.41	48.68	451.60
134	2021-08-12	14.51	57.76	443.94
135	2021-08-13	24.26	114.81	433.94
136	2021-08-14	27.27	210.59	334.10
137	2021-08-15	25.51	186.97	312.52
138	2021-08-16	25.45	132.60	311.80
139	2021-08-17	24.21	76.20	296.43
140	2021-08-18	24.82	81.63	304.06
141	2021-08-19	27.10	90.10	332.05
142	2021-08-20	25.37	82.27	310.80
143	2021-08-21	20.73	74.25	253.79
144	2021-08-22	22.87	69.58	280.14

SI No	Time	Stack_6_CPP_6_135MW-PM_U	Stack_6_CPP_6_135MW-NOx_U	Stack_6_CPP_6_135MW-SO2_U
145	2021-08-23	27.42	89.39	336.00
146	2021-08-24	27.91	85.64	342.00
147	2021-08-25	30.49	93.28	373.64
148	2021-08-26	29.68	85.07	363.76
149	2021-08-27	32.90	99.15	403.21
150	2021-08-28	34.43	96.99	421.99
151	2021-08-29	27.25	69.94	333.86
152	2021-08-30	28.33	76.70	347.09
153	2021-08-31	22.49	69.13	275.40

Report Details: JSPLAngul | 2021-09-08 11:35:43 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	Stack_12_SMS-PM_U	Stack_12_SMS-SO2_U	Stack_12_SMS-NOx_U
Prescribed Standards	0 - 100	0 -	0 -
Maximum Data	43.48	21.74	12.2
Minimum Data	23.39	0.0	0.0
Geometric Mean	35.48	18.85	10.21
Median	36.08	20.33	10.86
Standard Deviation	4.44	4.99	2.72
Maximum Value At Time	2021-08-19	2021-05-23	2021-05-23
Minimum Value At Time	2021-04-10	2021-07-27	2021-07-27
Valid Data Points	122	122	122
Total Data Points	153	153	153
Data Availability %	79.74%	79.74%	79.74%

SI No	Time	Stack_12_SMS-PM_U	Stack_12_SMS-SO2_U	Stack_12_SMS-NOx_U
1	2021-04-01	37.88	20.57	10.37
2	2021-04-02	33.35	20.27	10.49
3	2021-04-03	34.50	20.57	10.87
4	2021-04-04	34.54	20.06	10.59
5	2021-04-05	36.29	20.04	10.49
6	2021-04-06	38.75	20.97	10.94
7	2021-04-07	25.75	19.66	10.29
8	2021-04-08	25.63	19.33	10.24
9	2021-04-09	25.72	18.63	9.72
10	2021-04-10	23.39	19.32	10.10
11	2021-04-11	28.90	19.26	10.04
12	2021-04-12	28.46	18.99	10.08
13	2021-04-13	27.09	19.16	10.54
14	2021-04-14	32.14	18.72	10.40
15	2021-04-15	27.31	18.75	10.39
16	2021-04-16	24.95	18.68	10.29
17	2021-04-17	37.63	20.48	11.28
18	2021-04-18	26.39	20.12	11.10
19	2021-04-19	25.48	19.52	10.81
20	2021-04-20	30.54	20.44	11.27
21	2021-04-21	29.03	20.25	11.14
22	2021-04-22	31.84	20.44	11.21
23	2021-04-23	32.95	20.16	10.93
24	2021-04-24	31.56	20.45	11.36

SI No	Time	Stack_12_SMS-PM_U	Stack_12_SMS-SO2_U	Stack_12_SMS-NOx_U
25	2021-04-25	31.56	20.64	11.50
26	2021-04-26	31.92	20.72	11.54
27	2021-04-27	33.02	20.85	11.70
28	2021-04-28	30.97	20.78	11.61
29	2021-04-29	35.66	20.62	11.56
30	2021-04-30	35.82	20.90	11.57
31	2021-05-01	38.40	20.36	11.30
32	2021-05-02	33.88	20.22	11.29
33	2021-05-03	37.58	19.54	10.91
34	2021-05-04	34.49	19.39	10.82
35	2021-05-05	33.83	19.41	10.89
36	2021-05-06	35.87	20.43	11.46
37	2021-05-07	36.15	19.36	10.77
38	2021-05-08	38.66	19.84	11.10
39	2021-05-09	41.83	19.35	10.77
40	2021-05-10	35.14	20.12	11.23
41	2021-05-11	37.45	18.83	10.53
42	2021-05-12	39.21	18.72	10.48
43	2021-05-13	38.57	19.04	10.66
44	2021-05-14	33.42	19.53	10.94
45	2021-05-15	34.66	21.00	11.75
46	2021-05-16	34.64	20.71	11.54
47	2021-05-17	35.70	21.15	11.93
48	2021-05-18	38.00	21.45	12.04
49	2021-05-19	36.54	21.38	11.98
50	2021-05-20	36.68	21.15	11.89
51	2021-05-21	37.97	20.18	11.26
52	2021-05-22	33.22	20.15	11.28
53	2021-05-23	41.87	21.74	12.20
54	2021-05-24	36.69	21.08	11.72
55	2021-05-25	38.16	19.08	10.55
56	2021-05-26	34.79	16.79	9.38
57	2021-05-27	39.83	17.80	10.11
58	2021-05-28	37.74	20.75	11.72
59	2021-05-29	32.81	20.91	11.68
60	2021-05-30	34.83	21.01	11.79
61	2021-05-31	40.08	21.33	12.04
62	2021-06-01	41.69	20.86	11.73
63	2021-06-02	25.55	18.49	10.44
64	2021-06-03	33.66	20.00	11.35
65	2021-06-04	28.84	20.53	11.51

SI No	Time	Stack_12_SMS-PM_U	Stack_12_SMS-SO2_U	Stack_12_SMS-NOx_U
66	2021-06-05	NA	NA	NA
67	2021-06-06	NA	NA	NA
68	2021-06-07	NA	NA	NA
69	2021-06-08	NA	NA	NA
70	2021-06-09	NA	NA	NA
71	2021-06-10	NA	NA	NA
72	2021-06-11	38.63	20.30	11.65
73	2021-06-12	NA	NA	NA
74	2021-06-13	NA	NA	NA
75	2021-06-14	43.37	18.75	10.68
76	2021-06-15	NA	NA	NA
77	2021-06-16	NA	NA	NA
78	2021-06-17	NA	NA	NA
79	2021-06-18	NA	NA	NA
80	2021-06-19	NA	NA	NA
81	2021-06-20	NA	NA	NA
82	2021-06-21	NA	NA	NA
83	2021-06-22	NA	NA	NA
84	2021-06-23	NA	NA	NA
85	2021-06-24	NA	NA	NA
86	2021-06-25	NA	NA	NA
87	2021-06-26	NA	NA	NA
88	2021-06-27	NA	NA	NA
89	2021-06-28	NA	NA	NA
90	2021-06-29	NA	NA	NA
91	2021-06-30	NA	NA	NA
92	2021-07-01	NA	NA	NA
93	2021-07-02	NA	NA	NA
94	2021-07-03	NA	NA	NA
95	2021-07-04	NA	NA	NA
96	2021-07-05	NA	NA	NA
97	2021-07-06	NA	NA	NA
98	2021-07-07	NA	NA	NA
99	2021-07-08	41.59	19.72	10.26
100	2021-07-09	40.36	19.66	10.33
101	2021-07-10	38.20	20.62	10.97
102	2021-07-11	31.60	20.57	10.77
103	2021-07-12	37.40	20.55	10.98
104	2021-07-13	37.66	20.21	10.69
105	2021-07-14	37.08	20.92	11.15
106	2021-07-15	34.48	20.60	10.91
107	2021-07-16	36.26	21.05	11.22

SI No	Time	Stack_12_SMS-PM_U	Stack_12_SMS-SO2_U	Stack_12_SMS-NOx_U
108	2021-07-17	34.23	21.41	11.27
109	2021-07-18	37.42	20.49	10.67
110	2021-07-19	37.67	20.36	10.73
111	2021-07-20	37.35	20.28	10.70
112	2021-07-21	38.94	19.51	10.23
113	2021-07-22	34.80	20.03	10.64
114	2021-07-23	27.61	19.38	10.22
115	2021-07-24	34.43	19.50	10.32
116	2021-07-25	31.79	20.07	10.65
117	2021-07-26	35.89	3.29	1.73
118	2021-07-27	35.71	0.00	0.00
119	2021-07-28	36.01	0.00	0.00
120	2021-07-29	35.09	0.00	0.00
121	2021-07-30	36.17	0.00	0.00
122	2021-07-31	36.64	0.00	0.00
123	2021-08-01	36.52	0.00	0.00
124	2021-08-02	39.39	1.28	0.65
125	2021-08-03	41.32	12.46	6.25
126	2021-08-04	39.50	20.60	10.47
127	2021-08-05	39.34	20.79	10.72
128	2021-08-06	40.17	20.62	10.71
129	2021-08-07	38.49	21.04	10.93
130	2021-08-08	35.86	20.75	10.84
131	2021-08-09	33.61	20.83	10.85
132	2021-08-10	37.80	20.66	10.84
133	2021-08-11	37.36	20.54	10.68
134	2021-08-12	38.86	20.53	10.77
135	2021-08-13	40.20	20.60	10.88
136	2021-08-14	40.17	20.53	10.88
137	2021-08-15	41.40	20.97	11.07
138	2021-08-16	41.62	21.37	11.24
139	2021-08-17	42.57	20.80	10.97
140	2021-08-18	41.05	20.03	10.59
141	2021-08-19	43.48	19.98	10.53
142	2021-08-20	42.23	21.21	11.19
143	2021-08-21	39.81	20.96	11.12
144	2021-08-22	38.97	21.01	11.16
145	2021-08-23	40.16	20.88	11.08
146	2021-08-24	38.55	20.56	10.85
147	2021-08-25	32.01	20.59	10.92
148	2021-08-26	32.34	20.26	10.74

Sl No	Time	Stack_12_SMS-PM_U	Stack_12_SMS-SO2_U	Stack_12_SMS-NOx_U
149	2021-08-27	34.00	20.06	10.72
150	2021-08-28	32.27	20.28	10.86
151	2021-08-29	32.51	20.65	11.14
152	2021-08-30	37.07	20.50	11.00
153	2021-08-31	35.64	20.60	11.06

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	STACK_29_SINTERING_DEDUSTING-PM_U
Prescribed Standards	0 - 50
Maximum Data	19.44
Minimum Data	0.0
Geometric Mean	12.28
Median	14.69
Standard Deviation	5.81
Maximum Value At Time	2021-04-12
Minimum Value At Time	2021-08-12
Valid Data Points	113
Total Data Points	153
Data Availability %	73.86%

SI No	Time	STACK_29_SINTERING_DEDUSTING-PM_U
1	2021-04-01	13.83
2	2021-04-02	14.41
3	2021-04-03	14.70
4	2021-04-04	14.68
5	2021-04-05	14.53
6	2021-04-06	13.88
7	2021-04-07	14.78
8	2021-04-08	14.48
9	2021-04-09	14.53
10	2021-04-10	14.23
11	2021-04-11	14.37
12	2021-04-12	19.44
13	2021-04-13	18.29
14	2021-04-14	13.54
15	2021-04-15	13.43
16	2021-04-16	14.74
17	2021-04-17	14.51
18	2021-04-18	14.46
19	2021-04-19	14.43
20	2021-04-20	14.19
21	2021-04-21	14.91
22	2021-04-22	14.82
23	2021-04-23	14.56
24	2021-04-24	14.84

SI No	Time	STACK_29_SINTERING_DEDUSTING-PM_U
25	2021-04-25	14.69
26	2021-04-26	15.08
27	2021-04-27	14.70
28	2021-04-28	15.05
29	2021-04-29	15.49
30	2021-04-30	15.38
31	2021-05-01	14.76
32	2021-05-02	15.20
33	2021-05-03	15.57
34	2021-05-04	14.84
35	2021-05-05	15.49
36	2021-05-06	15.25
37	2021-05-07	14.64
38	2021-05-08	15.90
39	2021-05-09	16.27
40	2021-05-10	14.83
41	2021-05-11	14.51
42	2021-05-12	15.27
43	2021-05-13	15.02
44	2021-05-14	15.85
45	2021-05-15	15.92
46	2021-05-16	NA
47	2021-05-17	NA
48	2021-05-18	NA
49	2021-05-19	NA
50	2021-05-20	NA
51	2021-05-21	NA
52	2021-05-22	NA
53	2021-05-23	NA
54	2021-05-24	NA
55	2021-05-25	NA
56	2021-05-26	NA
57	2021-05-27	NA
58	2021-05-28	NA
59	2021-05-29	NA
60	2021-05-30	NA
61	2021-05-31	NA
62	2021-06-01	NA
63	2021-06-02	NA
64	2021-06-03	NA
65	2021-06-04	NA

SI No	Time	STACK_29_SINTERING_DEDUSTING-PM_U
66	2021-06-05	NA
67	2021-06-06	NA
68	2021-06-07	NA
69	2021-06-08	NA
70	2021-06-09	NA
71	2021-06-10	NA
72	2021-06-11	NA
73	2021-06-12	NA
74	2021-06-13	NA
75	2021-06-14	NA
76	2021-06-15	NA
77	2021-06-16	NA
78	2021-06-17	NA
79	2021-06-18	NA
80	2021-06-19	NA
81	2021-06-20	NA
82	2021-06-21	NA
83	2021-06-22	NA
84	2021-06-23	NA
85	2021-06-24	NA
86	2021-06-25	11.19
87	2021-06-26	14.05
88	2021-06-27	15.26
89	2021-06-28	15.58
90	2021-06-29	15.68
91	2021-06-30	14.67
92	2021-07-01	15.36
93	2021-07-02	14.90
94	2021-07-03	15.64
95	2021-07-04	14.77
96	2021-07-05	15.27
97	2021-07-06	15.43
98	2021-07-07	19.02
99	2021-07-08	15.70
100	2021-07-09	15.33
101	2021-07-10	14.63
102	2021-07-11	15.06
103	2021-07-12	15.09
104	2021-07-13	14.64
105	2021-07-14	14.62
106	2021-07-15	14.61
107	2021-07-16	14.98

SI No	Time	STACK_29_SINTERING_DEDUSTING-PM_U
108	2021-07-17	17.25
109	2021-07-18	13.96
110	2021-07-19	14.52
111	2021-07-20	14.62
112	2021-07-21	15.34
113	2021-07-22	15.01
114	2021-07-23	13.65
115	2021-07-24	14.74
116	2021-07-25	14.05
117	2021-07-26	14.65
118	2021-07-27	14.37
119	2021-07-28	15.29
120	2021-07-29	15.50
121	2021-07-30	15.42
122	2021-07-31	14.08
123	2021-08-01	15.68
124	2021-08-02	15.34
125	2021-08-03	15.21
126	2021-08-04	14.25
127	2021-08-05	14.93
128	2021-08-06	14.88
129	2021-08-07	14.94
130	2021-08-08	14.85
131	2021-08-09	14.99
132	2021-08-10	14.17
133	2021-08-11	9.82
134	2021-08-12	0.00
135	2021-08-13	0.00
136	2021-08-14	0.00
137	2021-08-15	0.00
138	2021-08-16	0.00
139	2021-08-17	0.00
140	2021-08-18	0.00
141	2021-08-19	0.00
142	2021-08-20	0.00
143	2021-08-21	0.00
144	2021-08-22	0.00
145	2021-08-23	0.00
146	2021-08-24	0.00
147	2021-08-25	0.00
148	2021-08-26	0.00

SI No	Time	STACK_29_SINTERING_DEDUSTING-PM_U
149	2021-08-27	0.00
150	2021-08-28	0.00
151	2021-08-29	0.00
152	2021-08-30	0.00
153	2021-08-31	0.00

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	STACK_30_SINTER_PLANT_FLUX-PM_U
Prescribed Standards	0 - 50
Maximum Data	47.23
Minimum Data	0.0
Geometric Mean	13.1
Median	10.58
Standard Deviation	11.06
Maximum Value At Time	2021-04-15
Minimum Value At Time	2021-05-20
Valid Data Points	153
Total Data Points	153
Data Availability %	100.0%

SI No	Time	STACK_30_SINTER_PLANT_FLUX-PM_U
1	2021-04-01	6.08
2	2021-04-02	6.20
3	2021-04-03	6.24
4	2021-04-04	6.16
5	2021-04-05	7.74
6	2021-04-06	8.55
7	2021-04-07	8.48
8	2021-04-08	8.51
9	2021-04-09	8.47
10	2021-04-10	8.51
11	2021-04-11	8.41
12	2021-04-12	8.46
13	2021-04-13	8.69
14	2021-04-14	16.37
15	2021-04-15	47.23
16	2021-04-16	23.23
17	2021-04-17	4.30
18	2021-04-18	4.43
19	2021-04-19	4.74
20	2021-04-20	6.94
21	2021-04-21	8.29
22	2021-04-22	4.14
23	2021-04-23	2.37
24	2021-04-24	8.07

SI No	Time	STACK_30_SINTER_PLANT_FLUX-PM_U
25	2021-04-25	8.25
26	2021-04-26	14.88
27	2021-04-27	11.68
28	2021-04-28	6.97
29	2021-04-29	3.36
30	2021-04-30	8.56
31	2021-05-01	13.84
32	2021-05-02	6.35
33	2021-05-03	4.56
34	2021-05-04	4.29
35	2021-05-05	4.28
36	2021-05-06	5.86
37	2021-05-07	2.79
38	2021-05-08	4.37
39	2021-05-09	4.69
40	2021-05-10	6.17
41	2021-05-11	2.86
42	2021-05-12	4.19
43	2021-05-13	1.09
44	2021-05-14	9.43
45	2021-05-15	4.25
46	2021-05-16	12.35
47	2021-05-17	12.26
48	2021-05-18	10.13
49	2021-05-19	5.49
50	2021-05-20	0.00
51	2021-05-21	0.00
52	2021-05-22	2.53
53	2021-05-23	10.67
54	2021-05-24	15.78
55	2021-05-25	2.93
56	2021-05-26	0.60
57	2021-05-27	0.62
58	2021-05-28	14.85
59	2021-05-29	24.91
60	2021-05-30	36.99
61	2021-05-31	17.09
62	2021-06-01	6.41
63	2021-06-02	6.71
64	2021-06-03	7.69
65	2021-06-04	10.80

SI No	Time	STACK_30_SINTER_PLANT_FLUX-PM_U
66	2021-06-05	10.79
67	2021-06-06	16.34
68	2021-06-07	29.70
69	2021-06-08	8.89
70	2021-06-09	25.12
71	2021-06-10	26.31
72	2021-06-11	19.26
73	2021-06-12	15.89
74	2021-06-13	17.96
75	2021-06-14	18.37
76	2021-06-15	21.11
77	2021-06-16	22.78
78	2021-06-17	22.98
79	2021-06-18	20.99
80	2021-06-19	18.40
81	2021-06-20	21.06
82	2021-06-21	28.98
83	2021-06-22	22.48
84	2021-06-23	17.42
85	2021-06-24	17.02
86	2021-06-25	17.24
87	2021-06-26	20.28
88	2021-06-27	17.81
89	2021-06-28	18.07
90	2021-06-29	18.63
91	2021-06-30	17.66
92	2021-07-01	16.29
93	2021-07-02	15.82
94	2021-07-03	15.78
95	2021-07-04	15.78
96	2021-07-05	15.82
97	2021-07-06	15.70
98	2021-07-07	15.68
99	2021-07-08	14.61
100	2021-07-09	16.61
101	2021-07-10	0.11
102	2021-07-11	0.09
103	2021-07-12	0.01
104	2021-07-13	0.00
105	2021-07-14	0.00
106	2021-07-15	0.00
107	2021-07-16	0.00

SI No	Time	STACK_30_SINTER_PLANT_FLUX-PM_U
108	2021-07-17	0.15
109	2021-07-18	0.13
110	2021-07-19	0.32
111	2021-07-20	0.33
112	2021-07-21	0.32
113	2021-07-22	0.25
114	2021-07-23	0.29
115	2021-07-24	0.30
116	2021-07-25	0.37
117	2021-07-26	0.40
118	2021-07-27	0.33
119	2021-07-28	0.37
120	2021-07-29	0.35
121	2021-07-30	0.15
122	2021-07-31	0.00
123	2021-08-01	0.00
124	2021-08-02	0.00
125	2021-08-03	0.00
126	2021-08-04	10.63
127	2021-08-05	21.94
128	2021-08-06	14.26
129	2021-08-07	10.58
130	2021-08-08	22.92
131	2021-08-09	23.48
132	2021-08-10	24.75
133	2021-08-11	26.22
134	2021-08-12	31.26
135	2021-08-13	30.89
136	2021-08-14	31.38
137	2021-08-15	31.07
138	2021-08-16	31.26
139	2021-08-17	31.88
140	2021-08-18	30.99
141	2021-08-19	31.76
142	2021-08-20	31.52
143	2021-08-21	32.13
144	2021-08-22	32.43
145	2021-08-23	32.77
146	2021-08-24	32.93
147	2021-08-25	32.00
148	2021-08-26	32.86

SI No	Time	STACK_30_SINTER_PLANT_FLUX-PM_U
149	2021-08-27	32.80
150	2021-08-28	23.06
151	2021-08-29	32.29
152	2021-08-30	32.69
153	2021-08-31	31.93

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/04/01 00:00:00 To Date : 2021/08/31 23:59:45

Description	STACK_ 28_SINTER_PROCESS-PM_U	STACK_ 28_SINTER_PROCESS-SO2_U	STACK_ 28_SINTER_PROCESS-NOx_U
Prescribed Standards	0 - 50	0 -	0 -
Maximum Data	63.68	799.88	570.12
Minimum Data	5.27	62.41	29.09
Geometric Mean	23.31	713.24	196.14
Median	20.26	791.87	143.78
Standard Deviation	13.86	202.24	153.65
Maximum Value At Time	2021-07-07	2021-05-26	2021-08-31
Minimum Value At Time	2021-04-26	2021-08-13	2021-06-02
Valid Data Points	153	153	153
Total Data Points	153	153	153
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	STACK_ 28_SINTER_PROCESS- PM_U	STACK_ 28_SINTER_PROCESS- SO2_U	STACK_ 28_SINTER_PROCESS- NOx_U
1	2021-04-01	8.92	785.42	181.97
2	2021-04-02	8.41	792.18	120.64
3	2021-04-03	8.81	792.53	129.16
4	2021-04-04	8.62	793.38	132.60
5	2021-04-05	8.28	793.65	137.23
6	2021-04-06	6.80	792.85	132.23
7	2021-04-07	7.46	792.75	148.79
8	2021-04-08	8.07	792.77	134.60
9	2021-04-09	10.14	793.64	131.95
10	2021-04-10	13.72	792.67	130.00
11	2021-04-11	10.28	792.89	126.54

SI No	Time	STACK_28_SINTER_PROCESS-PM_U	STACK_28_SINTER_PROCESS-SO2_U	STACK_28_SINTER_PROCESS-NOx_U
12	2021-04-12	46.66	795.42	78.48
13	2021-04-13	29.40	792.56	128.78
14	2021-04-14	18.31	792.03	207.88
15	2021-04-15	9.44	790.61	206.42
16	2021-04-16	5.53	791.69	167.85
17	2021-04-17	6.90	791.79	98.04
18	2021-04-18	6.37	792.02	108.32
19	2021-04-19	5.32	792.05	90.40
20	2021-04-20	5.54	790.66	73.25
21	2021-04-21	7.12	790.54	74.58
22	2021-04-22	5.32	792.33	94.09
23	2021-04-23	5.49	792.71	95.12
24	2021-04-24	5.39	788.47	112.99
25	2021-04-25	5.91	786.39	145.31
26	2021-04-26	5.27	787.42	137.08
27	2021-04-27	6.05	787.86	61.97
28	2021-04-28	8.65	788.72	76.50
29	2021-04-29	6.84	790.12	59.30
30	2021-04-30	5.53	789.98	50.49
31	2021-05-01	5.48	790.10	78.89
32	2021-05-02	5.76	790.82	113.96
33	2021-05-03	7.62	791.31	126.44
34	2021-05-04	14.16	794.91	113.41
35	2021-05-05	18.54	794.72	118.52

SI No	Time	STACK_28_SINTER_PROCESS-PM_U	STACK_28_SINTER_PROCESS-SO2_U	STACK_28_SINTER_PROCESS-NOx_U
36	2021-05-06	20.13	791.74	132.85
37	2021-05-07	18.85	795.22	55.48
38	2021-05-08	21.80	793.30	54.35
39	2021-05-09	30.70	794.28	49.08
40	2021-05-10	9.47	791.69	59.48
41	2021-05-11	8.91	796.57	50.74
42	2021-05-12	10.92	795.01	77.14
43	2021-05-13	9.55	797.50	65.36
44	2021-05-14	17.87	791.94	81.06
45	2021-05-15	18.21	790.45	92.83
46	2021-05-16	17.29	789.29	105.89
47	2021-05-17	9.08	787.97	148.44
48	2021-05-18	19.06	786.51	210.06
49	2021-05-19	22.07	788.06	191.47
50	2021-05-20	17.38	788.65	198.67
51	2021-05-21	27.42	793.81	97.79
52	2021-05-22	7.41	790.94	117.22
53	2021-05-23	21.29	788.90	136.69
54	2021-05-24	21.01	789.53	150.84
55	2021-05-25	17.40	795.14	141.70
56	2021-05-26	18.00	799.88	96.40
57	2021-05-27	16.14	797.74	84.18
58	2021-05-28	21.26	793.65	60.66
59	2021-05-29	20.30	790.96	103.04

SI No	Time	STACK_28_SINTER_PROCESS-PM_U	STACK_28_SINTER_PROCESS-SO2_U	STACK_28_SINTER_PROCESS-NOx_U
60	2021-05-30	18.18	789.70	106.37
61	2021-05-31	12.66	787.70	124.98
62	2021-06-01	36.22	792.01	147.17
63	2021-06-02	11.31	799.63	29.09
64	2021-06-03	28.11	794.42	87.12
65	2021-06-04	23.84	787.65	254.55
66	2021-06-05	15.45	788.45	268.25
67	2021-06-06	14.09	787.27	96.33
68	2021-06-07	16.74	787.34	93.02
69	2021-06-08	22.44	789.98	80.83
70	2021-06-09	26.10	794.85	57.61
71	2021-06-10	11.09	798.57	40.61
72	2021-06-11	11.41	792.54	188.42
73	2021-06-12	7.43	791.75	199.82
74	2021-06-13	12.02	792.76	193.82
75	2021-06-14	8.43	791.65	184.39
76	2021-06-15	6.80	791.84	168.69
77	2021-06-16	10.47	792.95	180.89
78	2021-06-17	11.05	794.60	180.63
79	2021-06-18	12.60	793.97	185.77
80	2021-06-19	11.91	795.02	196.22
81	2021-06-20	14.10	790.81	209.06
82	2021-06-21	20.28	788.61	114.06
83	2021-06-22	13.89	793.37	110.30

SI No	Time	STACK_28_SINTER_PROCESS-PM_U	STACK_28_SINTER_PROCESS-SO2_U	STACK_28_SINTER_PROCESS-NOx_U
84	2021-06-23	20.01	794.52	112.50
85	2021-06-24	18.38	793.24	113.66
86	2021-06-25	15.49	794.01	113.95
87	2021-06-26	15.97	794.08	170.88
88	2021-06-27	19.37	792.76	214.90
89	2021-06-28	19.13	791.16	229.57
90	2021-06-29	22.71	789.06	232.18
91	2021-06-30	17.52	788.21	209.22
92	2021-07-01	20.26	788.92	179.22
93	2021-07-02	24.68	792.36	159.05
94	2021-07-03	19.81	793.37	161.61
95	2021-07-04	27.61	793.22	154.51
96	2021-07-05	19.96	791.27	142.27
97	2021-07-06	20.98	790.22	109.90
98	2021-07-07	63.68	793.59	75.00
99	2021-07-08	36.42	794.18	122.56
100	2021-07-09	28.50	793.07	135.32
101	2021-07-10	26.84	792.74	147.38
102	2021-07-11	28.03	795.10	204.52
103	2021-07-12	26.24	798.22	92.51
104	2021-07-13	31.67	797.57	206.47
105	2021-07-14	38.16	794.56	197.94
106	2021-07-15	34.18	794.07	200.94
107	2021-07-16	41.11	791.82	170.19

SI No	Time	STACK_28_SINTER_PROCESS-PM_U	STACK_28_SINTER_PROCESS-SO2_U	STACK_28_SINTER_PROCESS-NOx_U
108	2021-07-17	43.23	793.99	82.49
109	2021-07-18	40.97	797.55	79.28
110	2021-07-19	22.56	793.65	134.84
111	2021-07-20	23.03	793.95	171.25
112	2021-07-21	25.44	794.18	180.97
113	2021-07-22	24.47	793.35	175.57
114	2021-07-23	37.76	794.57	162.50
115	2021-07-24	36.34	794.20	192.61
116	2021-07-25	40.27	791.87	182.70
117	2021-07-26	32.47	791.83	131.25
118	2021-07-27	36.72	797.59	129.57
119	2021-07-28	45.16	798.11	139.67
120	2021-07-29	37.76	798.42	141.39
121	2021-07-30	30.10	797.94	143.78
122	2021-07-31	27.56	795.88	223.29
123	2021-08-01	38.35	792.90	237.47
124	2021-08-02	37.90	791.61	238.11
125	2021-08-03	36.10	792.96	232.12
126	2021-08-04	38.94	793.12	218.09
127	2021-08-05	40.43	791.39	235.97
128	2021-08-06	39.80	790.80	242.63
129	2021-08-07	38.42	790.23	242.66
130	2021-08-08	45.54	790.70	250.54
131	2021-08-09	48.93	791.77	173.47

SI No	Time	STACK_28_SINTER_PROCESS-PM_U	STACK_28_SINTER_PROCESS-SO2_U	STACK_28_SINTER_PROCESS-NOx_U
132	2021-08-10	39.39	790.62	61.03
133	2021-08-11	39.22	571.31	212.41
134	2021-08-12	51.83	84.47	565.83
135	2021-08-13	36.62	62.41	567.55
136	2021-08-14	49.11	123.71	566.92
137	2021-08-15	53.45	188.96	567.45
138	2021-08-16	50.83	190.49	567.20
139	2021-08-17	43.98	201.44	569.91
140	2021-08-18	48.68	192.58	568.93
141	2021-08-19	51.41	215.11	569.45
142	2021-08-20	45.56	198.93	569.24
143	2021-08-21	40.91	181.17	567.76
144	2021-08-22	42.24	203.20	566.88
145	2021-08-23	45.63	229.34	565.15
146	2021-08-24	35.73	256.12	565.49
147	2021-08-25	32.36	219.33	564.85
148	2021-08-26	30.95	225.84	566.68
149	2021-08-27	30.70	216.88	568.03
150	2021-08-28	35.80	223.56	568.49
151	2021-08-29	38.12	235.30	569.12
152	2021-08-30	36.93	262.20	569.75
153	2021-08-31	37.75	242.01	570.12



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_34_BOF_BAG_FILTER FILTER-PM_U
Prescribed Standards	0 - 100
Maximum Data	24.88
Minimum Data	20.27
Geometric Mean	22.85
Median	22.78
Standard Deviation	0.9
Maximum Value At Time	2021-09-09
Minimum Value At Time	2021-09-14
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

Sl No	Time	STACK_34_BOF_BAG_FILTER FILTER-PM_U
1	2021-09-01	22.77
2	2021-09-02	22.82
3	2021-09-03	23.25
4	2021-09-04	23.39
5	2021-09-05	22.84
6	2021-09-06	22.58
7	2021-09-07	23.19
8	2021-09-08	23.28
9	2021-09-09	24.88
10	2021-09-10	24.65
11	2021-09-11	24.24
12	2021-09-12	23.61
13	2021-09-13	22.97
14	2021-09-14	20.27
15	2021-09-15	22.86
16	2021-09-16	24.21
17	2021-09-17	21.69
18	2021-09-18	22.65
19	2021-09-19	22.80
20	2021-09-20	22.44
21	2021-09-21	22.68
22	2021-09-22	22.17
23	2021-09-23	22.33

SI No	Time	STACK_34_BOF_BAG_FILTER FILTER-PM_U
24	2021-09-24	22.28
25	2021-09-25	21.91
26	2021-09-26	22.30
27	2021-09-27	22.77
28	2021-09-28	22.60
29	2021-09-29	22.89
30	2021-09-30	22.13

Report Details: JSPLAngul | 2021-11-29 12:02:18 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_35_BF_CAST_HOUSE_EAST-PM_U
Prescribed Standards	0 - 50
Maximum Data	56.08
Minimum Data	23.61
Geometric Mean	35.9
Median	35.57
Standard Deviation	7.06
Maximum Value At Time	2021-09-13
Minimum Value At Time	2021-09-03
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

Sl No	Time	STACK_35_BF_CAST_HOUSE_EAST-PM_U
1	2021-09-01	29.97
2	2021-09-02	28.47
3	2021-09-03	23.61
4	2021-09-04	27.30
5	2021-09-05	25.54
6	2021-09-06	33.19
7	2021-09-07	36.07
8	2021-09-08	34.86
9	2021-09-09	41.65
10	2021-09-10	35.46
11	2021-09-11	43.73
12	2021-09-12	50.15
13	2021-09-13	56.08
14	2021-09-14	46.93
15	2021-09-15	44.16
16	2021-09-16	37.52
17	2021-09-17	36.02
18	2021-09-18	32.31
19	2021-09-19	36.76
20	2021-09-20	32.70
21	2021-09-21	38.60
22	2021-09-22	33.27
23	2021-09-23	33.67

SI No	Time	STACK_35_BF_CAST_HOUSE_EAST-PM_U
24	2021-09-24	31.23
25	2021-09-25	28.89
26	2021-09-26	34.37
27	2021-09-27	36.88
28	2021-09-28	35.79
29	2021-09-29	35.68
30	2021-09-30	36.14

Report Details: JSPLAngul | 2021-11-29 12:06:08 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_ 27_BF_CAST_HOUSE_WEST-PM_U
Prescribed Standards	0 - 50
Maximum Data	23.74
Minimum Data	23.24
Geometric Mean	23.5
Median	23.49
Standard Deviation	0.13
Maximum Value At Time	2021-09-18
Minimum Value At Time	2021-09-13
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

Sl No	Time	STACK_ 27_BF_CAST_HOUSE_WEST-PM_U
1	2021-09-01	23.46
2	2021-09-02	23.59
3	2021-09-03	23.68
4	2021-09-04	23.68
5	2021-09-05	23.59
6	2021-09-06	23.32
7	2021-09-07	23.33
8	2021-09-08	23.40
9	2021-09-09	23.44
10	2021-09-10	23.63
11	2021-09-11	23.63
12	2021-09-12	23.48
13	2021-09-13	23.24
14	2021-09-14	23.35
15	2021-09-15	23.42
16	2021-09-16	23.56
17	2021-09-17	23.50
18	2021-09-18	23.74
19	2021-09-19	23.54
20	2021-09-20	23.68
21	2021-09-21	23.43
22	2021-09-22	23.62
23	2021-09-23	23.52

SI No	Time	STACK_27_BF_CAST_HOUSE_WEST-PM_U
24	2021-09-24	23.55
25	2021-09-25	23.58
26	2021-09-26	23.39
27	2021-09-27	23.35
28	2021-09-28	23.39
29	2021-09-29	23.44
30	2021-09-30	23.48

Report Details: JSPLAngul | 2021-11-29 12:05:31 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_36_BF_PCI-SO2_U	STACK_36_BF_PCI-NOx_U	STACK_36_BF_PCI-PM_U
Prescribed Standards	0 -	0 -	0 - 50
Maximum Data	24.65	22.87	24.92
Minimum Data	16.83	0.0	19.88
Geometric Mean	21.37	7.32	22.0
Median	22.4	7.3	21.61
Standard Deviation	2.81	7.08	1.59
Maximum Value At Time	2021-09-05	2021-09-01	2021-09-11
Minimum Value At Time	2021-09-26	2021-09-18	2021-09-30
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	STACK_36_BF_PCI-SO2_U	STACK_36_BF_PCI-NOx_U	STACK_36_BF_PCI-PM_U
1	2021-09-01	24.40	22.87	23.84
2	2021-09-02	24.44	13.27	23.90
3	2021-09-03	24.48	15.50	24.38
4	2021-09-04	24.41	8.01	24.74
5	2021-09-05	24.65	11.12	23.60
6	2021-09-06	24.52	14.28	23.34
7	2021-09-07	24.55	11.90	23.08
8	2021-09-08	24.24	6.66	23.90
9	2021-09-09	23.68	18.07	23.54
10	2021-09-10	23.22	18.10	22.82
11	2021-09-11	22.88	10.61	24.92
12	2021-09-12	22.57	9.24	22.82
13	2021-09-13	23.35	7.29	21.79
14	2021-09-14	22.77	18.21	21.61
15	2021-09-15	22.66	11.22	21.71
16	2021-09-16	22.23	7.31	21.50
17	2021-09-17	20.40	1.18	20.72
18	2021-09-18	18.92	0.00	21.61
19	2021-09-19	18.53	0.00	21.30
20	2021-09-20	18.21	0.00	20.09
21	2021-09-21	17.86	0.00	19.92
22	2021-09-22	17.53	0.00	20.16
23	2021-09-23	17.28	0.01	20.18
24	2021-09-24	17.20	0.00	20.79

SI No	Time	STACK_36_BF_PCI-SO2_U	STACK_36_BF_PCI-NOx_U	STACK_36_BF_PCI-PM_U
25	2021-09-25	17.29	0.01	21.44
26	2021-09-26	16.83	0.00	20.76
27	2021-09-27	20.36	1.14	20.69
28	2021-09-28	21.92	1.45	20.49
29	2021-09-29	20.92	1.20	20.49
30	2021-09-30	18.94	11.05	19.88

Report Details: JSPLAngul | 2021-11-29 12:06:43 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_26_BF_STOCK_HOUSE-PM_U
Prescribed Standards	0 - 50
Maximum Data	61.16
Minimum Data	0.44
Geometric Mean	10.28
Median	1.6
Standard Deviation	14.94
Maximum Value At Time	2021-09-13
Minimum Value At Time	2021-09-22
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

SI No	Time	STACK_26_BF_STOCK_HOUSE-PM_U
1	2021-09-01	29.88
2	2021-09-02	28.13
3	2021-09-03	25.76
4	2021-09-04	27.85
5	2021-09-05	27.11
6	2021-09-06	35.52
7	2021-09-07	10.04
8	2021-09-08	1.57
9	2021-09-09	2.40
10	2021-09-10	1.62
11	2021-09-11	1.43
12	2021-09-12	7.45
13	2021-09-13	61.16
14	2021-09-14	23.30
15	2021-09-15	5.73
16	2021-09-16	2.07
17	2021-09-17	0.51
18	2021-09-18	0.59
19	2021-09-19	0.71
20	2021-09-20	0.53
21	2021-09-21	4.17
22	2021-09-22	0.44
23	2021-09-23	0.88
24	2021-09-24	1.40

SI No	Time	STACK_26_BF_STOCK_HOUSE-PM_U
25	2021-09-25	1.37
26	2021-09-26	1.31
27	2021-09-27	1.30
28	2021-09-28	1.37
29	2021-09-29	1.33
30	2021-09-30	1.58

Report Details: JSPLAngul | 2021-11-29 12:04:59 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_25_BF_STOVE-SO2_U	STACK_25_BF_STOVE-NOx_U	STACK_25_BF_STOVE-PM_U
Prescribed Standards	0 - 200	0 - 150	0 - 50
Maximum Data	129.26	65.22	42.94
Minimum Data	89.34	20.84	28.92
Geometric Mean	120.69	36.67	32.53
Median	121.38	30.96	32.23
Standard Deviation	6.6	12.91	2.72
Maximum Value At Time	2021-09-19	2021-09-01	2021-09-13
Minimum Value At Time	2021-09-30	2021-09-30	2021-09-05
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	STACK_25_BF_STOVE-SO2_U	STACK_25_BF_STOVE-NOx_U	STACK_25_BF_STOVE-PM_U
1	2021-09-01	119.78	65.22	28.98
2	2021-09-02	118.30	52.02	29.60
3	2021-09-03	120.37	58.70	29.32
4	2021-09-04	120.83	49.16	30.09
5	2021-09-05	120.68	53.89	28.92
6	2021-09-06	122.64	57.40	29.92
7	2021-09-07	124.47	47.73	31.23
8	2021-09-08	121.39	38.48	31.12
9	2021-09-09	121.11	51.56	31.98
10	2021-09-10	118.47	49.84	30.40
11	2021-09-11	121.37	44.75	31.10
12	2021-09-12	121.65	36.52	32.46
13	2021-09-13	116.92	31.44	42.94
14	2021-09-14	117.14	40.09	34.82
15	2021-09-15	119.04	33.08	34.01
16	2021-09-16	121.79	24.63	33.38
17	2021-09-17	124.12	28.27	33.76
18	2021-09-18	125.98	27.86	33.71
19	2021-09-19	129.26	24.77	35.08
20	2021-09-20	127.97	24.99	34.39
21	2021-09-21	124.59	25.06	35.93
22	2021-09-22	124.18	25.18	32.14

SI No	Time	STACK_25_BF_STOVE-SO2_U	STACK_25_BF_STOVE-NOx_U	STACK_25_BF_STOVE-PM_U
23	2021-09-23	117.57	29.12	32.29
24	2021-09-24	121.61	24.95	31.90
25	2021-09-25	121.87	24.35	31.32
26	2021-09-26	123.47	25.49	32.17
27	2021-09-27	122.49	26.29	32.95
28	2021-09-28	121.28	28.09	32.66
29	2021-09-29	120.94	30.47	33.53
30	2021-09-30	89.34	20.84	33.93

Report Details: JSPLAngul | 2021-11-29 12:04:19 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_23_Rebar_Mill-NOx_U	Stack_23_Rebar_Mill-SO2_U	Stack_23_Rebar_Mill-PM_U
Prescribed Standards	0 -	0 -	0 - 50
Maximum Data	252.77	162.11	36.3
Minimum Data	30.01	5.68	0.0
Geometric Mean	100.99	64.45	11.07
Median	82.26	62.22	1.09
Standard Deviation	54.51	42.21	14.98
Maximum Value At Time	2021-09-11	2021-09-01	2021-09-29
Minimum Value At Time	2021-09-23	2021-09-18	2021-09-03
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_23_Rebar_Mill-NOx_U	Stack_23_Rebar_Mill-SO2_U	Stack_23_Rebar_Mill-PM_U
1	2021-09-01	83.28	162.11	30.76
2	2021-09-02	51.09	121.67	1.61
3	2021-09-03	71.37	107.87	0.00
4	2021-09-04	143.98	45.02	1.75
5	2021-09-05	40.05	31.60	2.06
6	2021-09-06	53.75	83.87	10.67
7	2021-09-07	72.50	87.05	32.60
8	2021-09-08	52.14	28.90	33.04
9	2021-09-09	142.95	114.19	17.10
10	2021-09-10	217.10	64.90	0.02
11	2021-09-11	252.77	33.11	0.00
12	2021-09-12	68.73	82.27	0.00
13	2021-09-13	81.24	16.45	0.00
14	2021-09-14	88.55	29.18	0.00
15	2021-09-15	63.79	80.91	0.00
16	2021-09-16	64.02	80.70	0.00
17	2021-09-17	179.21	143.19	0.00
18	2021-09-18	181.95	5.68	0.00
19	2021-09-19	83.39	33.80	10.54
20	2021-09-20	51.97	50.11	0.00
21	2021-09-21	90.23	16.63	0.00
22	2021-09-22	146.80	66.09	0.11
23	2021-09-23	30.01	74.65	0.57
24	2021-09-24	156.15	22.21	0.08

SI No	Time	Stack_23_Rebar_Mill-NOx_U	Stack_23_Rebar_Mill-SO2_U	Stack_23_Rebar_Mill-PM_U
25	2021-09-25	72.98	11.26	12.09
26	2021-09-26	115.59	48.00	35.51
27	2021-09-27	78.47	141.60	35.31
28	2021-09-28	129.39	26.13	35.66
29	2021-09-29	94.16	61.61	36.30
30	2021-09-30	71.97	62.82	36.24

Report Details: JSPLAngul | 2021-11-29 11:16:13 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_13_Coalgasification_unit_3-PM_U
Prescribed Standards	0 - 50
Maximum Data	13.97
Minimum Data	0.95
Geometric Mean	7.82
Median	10.66
Standard Deviation	5.92
Maximum Value At Time	2021-09-30
Minimum Value At Time	2021-09-14
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

SI No	Time	Stack_13_Coalgasification_unit_3-PM_U
1	2021-09-01	7.90
2	2021-09-02	11.26
3	2021-09-03	12.97
4	2021-09-04	12.57
5	2021-09-05	11.96
6	2021-09-06	11.93
7	2021-09-07	11.92
8	2021-09-08	10.06
9	2021-09-09	0.98
10	2021-09-10	0.99
11	2021-09-11	0.99
12	2021-09-12	1.00
13	2021-09-13	0.98
14	2021-09-14	0.95
15	2021-09-15	0.97
16	2021-09-16	0.98
17	2021-09-17	0.99
18	2021-09-18	1.00
19	2021-09-19	0.97
20	2021-09-20	0.99
21	2021-09-21	6.61
22	2021-09-22	13.95
23	2021-09-23	13.94
24	2021-09-24	13.95

SI No	Time	Stack_13_Coalgasification_unit_3-PM_U
25	2021-09-25	13.95
26	2021-09-26	13.93
27	2021-09-27	13.92
28	2021-09-28	13.93
29	2021-09-29	13.95
30	2021-09-30	13.97

Report Details: JSPLAngul | 2021-11-29 11:33:25 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_14_Coalgasification_unit_9-PM_U
Prescribed Standards	0 - 50
Maximum Data	51.17
Minimum Data	48.8
Geometric Mean	49.03
Median	48.89
Standard Deviation	0.6
Maximum Value At Time	2021-09-23
Minimum Value At Time	2021-09-01
Valid Data Points	15
Total Data Points	30
Data Availability %	50.0%

SI No	Time	Stack_14_Coalgasification_unit_9-PM_U
1	2021-09-01	48.80
2	2021-09-02	48.80
3	2021-09-03	48.80
4	2021-09-04	48.81
5	2021-09-05	48.82
6	2021-09-06	48.85
7	2021-09-07	48.89
8	2021-09-08	48.89
9	2021-09-09	48.90
10	2021-09-10	48.90
11	2021-09-11	48.91
12	2021-09-12	48.91
13	2021-09-13	48.91
14	2021-09-14	49.05
15	2021-09-15	NA
16	2021-09-16	NA
17	2021-09-17	NA
18	2021-09-18	NA
19	2021-09-19	NA
20	2021-09-20	NA
21	2021-09-21	NA
22	2021-09-22	NA
23	2021-09-23	51.17
24	2021-09-24	NA

SI No	Time	Stack_14_Coalgasification_unit_9-PM_U
25	2021-09-25	NA
26	2021-09-26	NA
27	2021-09-27	NA
28	2021-09-28	NA
29	2021-09-29	NA
30	2021-09-30	NA

Report Details: JSPLAngul | 2021-11-29 11:54:09 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_22_COKEoven_Battery1_2-PM_U	Stack_22_COKEoven_Battery1_2-SO2_U	Stack_22_COKEoven_Battery1_2-NOx_U
Prescribed Standards	0 - 50	0 - 800	0 - 500
Maximum Data	0.1	450.07	253.58
Minimum Data	0.09	155.0	161.78
Geometric Mean	0.09	243.79	208.42
Median	0.1	195.08	206.3
Standard Deviation	0.01	94.08	26.3
Maximum Value At Time	2021-09-02	2021-09-20	2021-09-28
Minimum Value At Time	2021-09-01	2021-09-27	2021-09-15
Valid Data Points	28	28	28
Total Data Points	30	30	30
Data Availability %	93.33%	93.33%	93.33%

SI No	Time	Stack_22_COKEoven_Battery1_2-PM_U	Stack_22_COKEoven_Battery1_2-SO2_U	Stack_22_COKEoven_Battery1_2-NOx_U
1	2021-09-01	0.09	291.14	180.78
2	2021-09-02	0.10	368.94	217.60
3	2021-09-03	0.09	196.44	195.37
4	2021-09-04	0.10	183.77	187.85
5	2021-09-05	0.10	183.57	187.64
6	2021-09-06	0.10	183.39	187.50
7	2021-09-07	0.10	183.40	187.53
8	2021-09-08	0.10	183.38	187.35

SI No	Time	Stack_22_COKEoven_Battery1_2-PM_U	Stack_22_COKEoven_Battery1_2-SO2_U	Stack_22_COKEoven_Battery1_2-NOx_U
9	2021-09-09	0.10	183.39	187.51
10	2021-09-10	0.09	213.73	196.56
11	2021-09-11	0.09	239.71	214.98
12	2021-09-12	0.09	239.63	215.02
13	2021-09-13	0.09	193.72	208.83
14	2021-09-14	0.10	296.60	189.23
15	2021-09-15	0.10	233.60	161.78
16	2021-09-16	0.10	232.40	170.32
17	2021-09-17	0.10	257.08	203.77
18	2021-09-18	0.09	421.88	246.05
19	2021-09-19	0.10	449.82	232.35
20	2021-09-20	0.10	450.07	232.51
21	2021-09-21	0.10	435.48	231.87
22	2021-09-22	NA	NA	NA
23	2021-09-23	NA	NA	NA
24	2021-09-24	0.09	174.84	176.01
25	2021-09-25	0.09	159.72	216.34
26	2021-09-26	0.09	177.96	237.58
27	2021-09-27	0.09	155.00	245.85
28	2021-09-28	0.09	166.91	253.58
29	2021-09-29	0.09	177.27	245.41
30	2021-09-30	0.09	193.38	238.65



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
Prescribed Standards	0 - 50	0 - 800	0 - 500
Maximum Data	0.06	484.07	176.91
Minimum Data	0.04	0.0	0.0
Geometric Mean	0.05	178.45	17.89
Median	0.05	217.56	0.0
Standard Deviation	0.0	158.54	46.76
Maximum Value At Time	2021-09-24	2021-09-09	2021-09-14
Minimum Value At Time	2021-09-08	2021-09-22	2021-09-01
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
1	2021-09-01	0.05	277.49	0.00
2	2021-09-02	0.05	311.46	0.00
3	2021-09-03	0.05	263.39	0.00
4	2021-09-04	0.05	254.56	0.00
5	2021-09-05	0.05	258.04	0.00
6	2021-09-06	0.05	339.53	0.00
7	2021-09-07	0.05	241.28	0.00
8	2021-09-08	0.04	139.98	0.00
9	2021-09-09	0.05	484.07	0.00

SI No	Time	Stack_38_Coke_Oven_Battery_3&4-PM_U	Stack_38_Coke_Oven_Battery_3&4-SO2_U	Stack_38_Coke_Oven_Battery_3&4-NOx_U
10	2021-09-10	0.05	448.81	0.00
11	2021-09-11	0.05	412.38	0.00
12	2021-09-12	0.05	445.72	0.00
13	2021-09-13	0.05	197.62	160.17
14	2021-09-14	0.05	56.26	176.91
15	2021-09-15	0.05	45.67	112.62
16	2021-09-16	0.05	176.66	54.46
17	2021-09-17	0.05	241.54	9.08
18	2021-09-18	0.05	237.49	17.61
19	2021-09-19	0.05	244.81	2.19
20	2021-09-20	0.05	246.53	3.03
21	2021-09-21	0.04	30.08	0.73
22	2021-09-22	0.05	0.00	0.00
23	2021-09-23	0.05	0.00	0.00
24	2021-09-24	0.06	0.00	0.00
25	2021-09-25	0.06	0.00	0.00
26	2021-09-26	0.06	0.00	0.00
27	2021-09-27	0.05	0.00	0.00
28	2021-09-28	0.05	0.00	0.00
29	2021-09-29	0.06	0.00	0.00
30	2021-09-30	0.06	0.00	0.00

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_15_CoalWashery_DSM-PM_U
Prescribed Standards	0 - 100
Maximum Data	45.46
Minimum Data	0.94
Geometric Mean	21.17
Median	25.99
Standard Deviation	14.8
Maximum Value At Time	2021-09-14
Minimum Value At Time	2021-09-07
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

SI No	Time	Stack_15_CoalWashery_DSM-PM_U
1	2021-09-01	2.46
2	2021-09-02	2.30
3	2021-09-03	2.24
4	2021-09-04	2.20
5	2021-09-05	2.16
6	2021-09-06	2.15
7	2021-09-07	0.94
8	2021-09-08	1.72
9	2021-09-09	3.47
10	2021-09-10	14.14
11	2021-09-11	26.77
12	2021-09-12	18.56
13	2021-09-13	7.90
14	2021-09-14	45.46
15	2021-09-15	31.38
16	2021-09-16	27.71
17	2021-09-17	23.23
18	2021-09-18	34.55
19	2021-09-19	37.13
20	2021-09-20	41.22
21	2021-09-21	28.24
22	2021-09-22	29.37
23	2021-09-23	25.94
24	2021-09-24	26.04

SI No	Time	Stack_15_CoalWashery_DSM-PM_U
25	2021-09-25	28.69
26	2021-09-26	43.63
27	2021-09-27	32.16
28	2021-09-28	38.63
29	2021-09-29	23.00
30	2021-09-30	31.62

Report Details: JSPLAngul | 2021-11-29 11:54:54 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_20_Coal_WasherySurge_Bin-PM_U
Prescribed Standards	0 - 100
Maximum Data	35.95
Minimum Data	0.02
Geometric Mean	13.86
Median	18.17
Standard Deviation	10.46
Maximum Value At Time	2021-09-14
Minimum Value At Time	2021-09-01
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

SI No	Time	Stack_20_Coal_WasherySurge_Bin-PM_U
1	2021-09-01	0.02
2	2021-09-02	0.02
3	2021-09-03	0.03
4	2021-09-04	0.03
5	2021-09-05	0.03
6	2021-09-06	0.03
7	2021-09-07	2.67
8	2021-09-08	0.03
9	2021-09-09	0.03
10	2021-09-10	8.40
11	2021-09-11	21.16
12	2021-09-12	11.18
13	2021-09-13	7.05
14	2021-09-14	35.95
15	2021-09-15	21.87
16	2021-09-16	21.39
17	2021-09-17	14.12
18	2021-09-18	22.66
19	2021-09-19	26.71
20	2021-09-20	24.94
21	2021-09-21	21.71
22	2021-09-22	18.55
23	2021-09-23	17.88
24	2021-09-24	19.57

SI No	Time	Stack_20_Coal_WasherySurge_Bin-PM_U
25	2021-09-25	18.47
26	2021-09-26	20.64
27	2021-09-27	20.85
28	2021-09-28	24.08
29	2021-09-29	14.63
30	2021-09-30	21.05

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_24_BSGDC_DRI-PM_U
Prescribed Standards	0 - 50
Maximum Data	9.85
Minimum Data	0.14
Geometric Mean	7.52
Median	8.94
Standard Deviation	3.36
Maximum Value At Time	2021-09-27
Minimum Value At Time	2021-09-29
Valid Data Points	8
Total Data Points	30
Data Availability %	26.67%

SI No	Time	Stack_24_BSGDC_DRI-PM_U
1	2021-09-01	NA
2	2021-09-02	NA
3	2021-09-03	NA
4	2021-09-04	NA
5	2021-09-05	NA
6	2021-09-06	NA
7	2021-09-07	NA
8	2021-09-08	NA
9	2021-09-09	NA
10	2021-09-10	NA
11	2021-09-11	NA
12	2021-09-12	NA
13	2021-09-13	NA
14	2021-09-14	NA
15	2021-09-15	NA
16	2021-09-16	NA
17	2021-09-17	NA
18	2021-09-18	NA
19	2021-09-19	NA
20	2021-09-20	NA
21	2021-09-21	NA
22	2021-09-22	NA
23	2021-09-23	9.48
24	2021-09-24	8.75

SI No	Time	Stack_24_BSGDC_DRI-PM_U
25	2021-09-25	9.74
26	2021-09-26	9.13
27	2021-09-27	9.85
28	2021-09-28	5.05
29	2021-09-29	0.14
30	2021-09-30	8.06

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_17_DRI_CO2_Removal-SO2_U	Stack_17_DRI_CO2_Removal-NOx_U
Prescribed Standards	0 -	0 -
Maximum Data	7.41	28.56
Minimum Data	6.24	24.18
Geometric Mean	6.82	26.25
Median	6.69	25.7
Standard Deviation	0.38	1.45
Maximum Value At Time	2021-09-11	2021-09-11
Minimum Value At Time	2021-09-19	2021-09-18
Valid Data Points	30	30
Total Data Points	30	30
Data Availability %	100.0%	100.0%

SI No	Time	Stack_17_DRI_CO2_Removal-SO2_U	Stack_17_DRI_CO2_Removal-NOx_U
1	2021-09-01	7.24	27.96
2	2021-09-02	7.02	27.27
3	2021-09-03	7.29	28.17
4	2021-09-04	7.10	27.49
5	2021-09-05	7.13	27.65
6	2021-09-06	7.37	28.22
7	2021-09-07	7.20	27.62
8	2021-09-08	7.23	27.81
9	2021-09-09	7.25	27.88
10	2021-09-10	7.31	28.20
11	2021-09-11	7.41	28.56
12	2021-09-12	7.28	27.81
13	2021-09-13	7.00	26.50
14	2021-09-14	6.69	25.09
15	2021-09-15	6.41	24.76
16	2021-09-16	6.61	25.22
17	2021-09-17	6.46	24.90
18	2021-09-18	6.28	24.18
19	2021-09-19	6.24	24.20
20	2021-09-20	6.58	25.52
21	2021-09-21	6.69	25.52
22	2021-09-22	6.67	25.81
23	2021-09-23	6.36	24.61
24	2021-09-24	6.34	24.55

SI No	Time	Stack_17_DRI_CO2_Removal-SO2_U	Stack_17_DRI_CO2_Removal-NOx_U
25	2021-09-25	6.43	24.84
26	2021-09-26	6.42	24.94
27	2021-09-27	6.61	25.63
28	2021-09-28	6.62	25.23
29	2021-09-29	6.75	25.78
30	2021-09-30	6.63	25.55

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_18_DRI_DE5-PM_U
Prescribed Standards	0 - 50
Maximum Data	8.27
Minimum Data	2.39
Geometric Mean	3.38
Median	2.99
Standard Deviation	1.18
Maximum Value At Time	2021-09-01
Minimum Value At Time	2021-09-11
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

SI No	Time	Stack_18_DRI_DE5-PM_U
1	2021-09-01	8.27
2	2021-09-02	6.05
3	2021-09-03	3.18
4	2021-09-04	2.67
5	2021-09-05	3.13
6	2021-09-06	3.77
7	2021-09-07	3.88
8	2021-09-08	2.97
9	2021-09-09	2.80
10	2021-09-10	2.40
11	2021-09-11	2.39
12	2021-09-12	2.73
13	2021-09-13	4.46
14	2021-09-14	4.49
15	2021-09-15	3.24
16	2021-09-16	2.93
17	2021-09-17	3.24
18	2021-09-18	3.42
19	2021-09-19	2.91
20	2021-09-20	3.36
21	2021-09-21	3.18
22	2021-09-22	2.82
23	2021-09-23	2.82
24	2021-09-24	2.83

SI No	Time	Stack_18_DRI_DE5-PM_U
25	2021-09-25	2.99
26	2021-09-26	2.75
27	2021-09-27	2.68
28	2021-09-28	2.80
29	2021-09-29	2.98
30	2021-09-30	3.18

Report Details: JSPLAngul | 2021-11-29 11:58:46 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_16_DRI_GasHeater-NOx_U	Stack_16_DRI_GasHeater-SO2_U
Prescribed Standards	0 -	0 -
Maximum Data	12.35	0.19
Minimum Data	0.0	0.0
Geometric Mean	0.6	0.01
Median	0.0	0.0
Standard Deviation	2.31	0.03
Maximum Value At Time	2021-09-12	2021-09-05
Minimum Value At Time	2021-09-01	2021-09-01
Valid Data Points	30	30
Total Data Points	30	30
Data Availability %	100.0%	100.0%

SI No	Time	Stack_16_DRI_GasHeater-NOx_U	Stack_16_DRI_GasHeater-SO2_U
1	2021-09-01	0.00	0.00
2	2021-09-02	0.00	0.00
3	2021-09-03	0.00	0.00
4	2021-09-04	0.00	0.00
5	2021-09-05	0.00	0.19
6	2021-09-06	0.00	0.00
7	2021-09-07	0.00	0.00
8	2021-09-08	0.00	0.00
9	2021-09-09	0.00	0.00
10	2021-09-10	0.00	0.00
11	2021-09-11	0.00	0.00
12	2021-09-12	12.35	0.00
13	2021-09-13	3.11	0.00
14	2021-09-14	0.02	0.00
15	2021-09-15	0.58	0.03
16	2021-09-16	0.00	0.00
17	2021-09-17	0.11	0.00
18	2021-09-18	0.02	0.00
19	2021-09-19	0.02	0.00
20	2021-09-20	0.00	0.00
21	2021-09-21	1.86	0.00
22	2021-09-22	0.00	0.00
23	2021-09-23	0.00	0.00
24	2021-09-24	0.00	0.00

Sl No	Time	Stack_16_DRI_GasHeater-NOx_U	Stack_16_DRI_GasHeater-SO2_U
25	2021-09-25	0.00	0.00
26	2021-09-26	0.00	0.00
27	2021-09-27	0.00	0.00
28	2021-09-28	0.00	0.00
29	2021-09-29	0.00	0.00
30	2021-09-30	0.00	0.00

Report Details: JSPLAngul | 2021-11-29 11:57:39 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stcak_32_HTDC_DRI-PM_U
Prescribed Standards	0 - 50
Maximum Data	11.38
Minimum Data	0.42
Geometric Mean	7.73
Median	10.66
Standard Deviation	4.74
Maximum Value At Time	2021-09-24
Minimum Value At Time	2021-09-30
Valid Data Points	8
Total Data Points	30
Data Availability %	26.67%

SI No	Time	Stcak_32_HTDC_DRI-PM_U
1	2021-09-01	NA
2	2021-09-02	NA
3	2021-09-03	NA
4	2021-09-04	NA
5	2021-09-05	NA
6	2021-09-06	NA
7	2021-09-07	NA
8	2021-09-08	NA
9	2021-09-09	NA
10	2021-09-10	NA
11	2021-09-11	NA
12	2021-09-12	NA
13	2021-09-13	NA
14	2021-09-14	NA
15	2021-09-15	NA
16	2021-09-16	NA
17	2021-09-17	NA
18	2021-09-18	NA
19	2021-09-19	NA
20	2021-09-20	NA
21	2021-09-21	NA
22	2021-09-22	NA
23	2021-09-23	10.96
24	2021-09-24	11.38

SI No	Time	Stcak_32_HTDC_DRI-PM_U
25	2021-09-25	10.93
26	2021-09-26	11.17
27	2021-09-27	10.39
28	2021-09-28	5.68
29	2021-09-29	0.88
30	2021-09-30	0.42

Report Details: JSPLAngul | 2021-11-29 12:00:34 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_31_PCDC_DRI-PM_U
Prescribed Standards	0 - 50
Maximum Data	10.01
Minimum Data	9.41
Geometric Mean	9.84
Median	9.94
Standard Deviation	0.22
Maximum Value At Time	2021-09-28
Minimum Value At Time	2021-09-23
Valid Data Points	8
Total Data Points	30
Data Availability %	26.67%

SI No	Time	Stack_31_PCDC_DRI-PM_U
1	2021-09-01	NA
2	2021-09-02	NA
3	2021-09-03	NA
4	2021-09-04	NA
5	2021-09-05	NA
6	2021-09-06	NA
7	2021-09-07	NA
8	2021-09-08	NA
9	2021-09-09	NA
10	2021-09-10	NA
11	2021-09-11	NA
12	2021-09-12	NA
13	2021-09-13	NA
14	2021-09-14	NA
15	2021-09-15	NA
16	2021-09-16	NA
17	2021-09-17	NA
18	2021-09-18	NA
19	2021-09-19	NA
20	2021-09-20	NA
21	2021-09-21	NA
22	2021-09-22	NA
23	2021-09-23	9.41
24	2021-09-24	9.61

SI No	Time	Stack_31_PCDC_DRI-PM_U
25	2021-09-25	9.77
26	2021-09-26	9.92
27	2021-09-27	9.96
28	2021-09-28	10.01
29	2021-09-29	9.99
30	2021-09-30	10.01

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_33_BOF_ESP-PM_U
Prescribed Standards	0 - 100
Maximum Data	97.38
Minimum Data	18.11
Geometric Mean	41.38
Median	43.28
Standard Deviation	21.01
Maximum Value At Time	2021-09-29
Minimum Value At Time	2021-09-03
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

SI No	Time	STACK_33_BOF_ESP-PM_U
1	2021-09-01	20.39
2	2021-09-02	19.72
3	2021-09-03	18.11
4	2021-09-04	22.68
5	2021-09-05	20.55
6	2021-09-06	19.70
7	2021-09-07	19.87
8	2021-09-08	22.45
9	2021-09-09	20.11
10	2021-09-10	23.48
11	2021-09-11	23.18
12	2021-09-12	24.77
13	2021-09-13	26.92
14	2021-09-14	47.17
15	2021-09-15	65.62
16	2021-09-16	68.01
17	2021-09-17	49.60
18	2021-09-18	43.58
19	2021-09-19	42.39
20	2021-09-20	42.97
21	2021-09-21	50.05
22	2021-09-22	49.68
23	2021-09-23	48.84

SI No	Time	STACK_33_ BOF_ESP-PM_U
24	2021-09-24	48.49
25	2021-09-25	54.58
26	2021-09-26	50.48
27	2021-09-27	55.93
28	2021-09-28	56.21
29	2021-09-29	97.38
30	2021-09-30	88.36

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_10_LimeDoloPlant_Kiln_1-SO2_U	Stack_10_LimeDoloPlant_Kiln_1-PM_U
Prescribed Standards	0 -	0 - 100
Maximum Data	19.26	46.03
Minimum Data	1.03	6.15
Geometric Mean	14.75	18.95
Median	15.59	15.75
Standard Deviation	3.94	11.34
Maximum Value At Time	2021-09-06	2021-09-21
Minimum Value At Time	2021-09-14	2021-09-12
Valid Data Points	15	16
Total Data Points	30	30
Data Availability %	50.0%	53.33%

SI No	Time	Stack_10_LimeDoloPlant_Kiln_1-SO2_U	Stack_10_LimeDoloPlant_Kiln_1-PM_U
1	2021-09-01	15.64	NA
2	2021-09-02	15.74	NA
3	2021-09-03	15.73	NA
4	2021-09-04	15.61	NA
5	2021-09-05	NA	NA
6	2021-09-06	19.26	NA
7	2021-09-07	15.76	NA
8	2021-09-08	15.65	NA
9	2021-09-09	15.57	24.24
10	2021-09-10	15.54	40.49
11	2021-09-11	15.43	13.78
12	2021-09-12	15.18	6.15
13	2021-09-13	NA	6.66
14	2021-09-14	1.03	10.10
15	2021-09-15	NA	8.37
16	2021-09-16	NA	17.26
17	2021-09-17	NA	14.24
18	2021-09-18	NA	13.07
19	2021-09-19	NA	13.64
20	2021-09-20	NA	18.90
21	2021-09-21	NA	46.03
22	2021-09-22	NA	27.43
23	2021-09-23	14.21	21.51
24	2021-09-24	15.59	21.35

SI No	Time	Stack_10_LimeDoloPlant_Kiln_1-SO2_U	Stack_10_LimeDoloPlant_Kiln_1-PM_U
25	2021-09-25	15.29	NA
26	2021-09-26	NA	NA
27	2021-09-27	NA	NA
28	2021-09-28	NA	NA
29	2021-09-29	NA	NA
30	2021-09-30	NA	NA

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_11_LimeDoloPlant_Kiln_2-PM_U	Stack_11_LimeDoloPlant_Kiln_2-SO2_U
Prescribed Standards	0 - 100	0 -
Maximum Data	13.59	51.16
Minimum Data	4.05	1.85
Geometric Mean	5.62	35.93
Median	4.85	41.06
Standard Deviation	2.64	15.01
Maximum Value At Time	2021-09-09	2021-09-01
Minimum Value At Time	2021-09-12	2021-09-14
Valid Data Points	16	15
Total Data Points	30	30
Data Availability %	53.33%	50.0%

SI No	Time	Stack_11_LimeDoloPlant_Kiln_2-PM_U	Stack_11_LimeDoloPlant_Kiln_2-SO2_U
1	2021-09-01	NA	51.16
2	2021-09-02	NA	49.41
3	2021-09-03	NA	48.08
4	2021-09-04	NA	47.29
5	2021-09-05	NA	NA
6	2021-09-06	NA	39.26
7	2021-09-07	NA	45.52
8	2021-09-08	NA	43.41
9	2021-09-09	13.59	43.14
10	2021-09-10	10.65	41.06
11	2021-09-11	4.79	38.65
12	2021-09-12	4.05	38.49
13	2021-09-13	5.26	NA
14	2021-09-14	4.12	1.85
15	2021-09-15	4.33	NA
16	2021-09-16	4.07	NA
17	2021-09-17	5.59	NA
18	2021-09-18	4.42	NA
19	2021-09-19	4.46	NA
20	2021-09-20	4.94	NA
21	2021-09-21	4.05	NA
22	2021-09-22	5.32	NA
23	2021-09-23	4.90	17.94
24	2021-09-24	5.37	16.93

SI No	Time	Stack_11_LimeDoloPlant_Kiln_2-PM_U	Stack_11_LimeDoloPlant_Kiln_2-SO2_U
25	2021-09-25	NA	16.74
26	2021-09-26	NA	NA
27	2021-09-27	NA	NA
28	2021-09-28	NA	NA
29	2021-09-29	NA	NA
30	2021-09-30	NA	NA

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_7_Process_Boiler_1- NOx_U	Stack_7_Process_Boiler_1- SO2_U	Stack_7_Process_Boiler_1- PM_U
Prescribed Standards	0 - 450	0 - 600	0 - 50
Maximum Data	55.95	524.5	37.89
Minimum Data	2.2	0.09	0.2
Geometric Mean	20.41	163.5	10.73
Median	5.49	1.24	0.23
Standard Deviation	23.09	229.6	16.08
Maximum Value At Time	2021-09-20	2021-09-20	2021-09-20
Minimum Value At Time	2021-09-02	2021-09-26	2021-09-14
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_7_Process_Boiler_1- NOx_U	Stack_7_Process_Boiler_1- SO2_U	Stack_7_Process_Boiler_1- PM_U
1	2021-09-01	2.73	1.45	0.22
2	2021-09-02	2.20	0.20	0.22
3	2021-09-03	2.26	0.21	0.23
4	2021-09-04	2.85	2.13	0.23
5	2021-09-05	2.98	1.03	0.23
6	2021-09-06	2.26	0.19	0.22
7	2021-09-07	3.38	0.21	0.23
8	2021-09-08	6.75	0.21	0.23
9	2021-09-09	2.21	0.21	0.23
10	2021-09-10	2.21	0.20	0.23
11	2021-09-11	4.35	0.21	0.22
12	2021-09-12	4.78	0.18	0.22

SI No	Time	Stack_7_Process_Boiler_1-NOx_U	Stack_7_Process_Boiler_1-SO2_U	Stack_7_Process_Boiler_1-PM_U
13	2021-09-13	2.28	0.14	0.21
14	2021-09-14	16.39	89.53	0.20
15	2021-09-15	48.87	439.57	25.61
16	2021-09-16	55.43	518.34	36.96
17	2021-09-17	55.73	521.92	37.50
18	2021-09-18	55.31	516.83	36.74
19	2021-09-19	55.30	516.82	36.75
20	2021-09-20	55.95	524.50	37.89
21	2021-09-21	45.68	403.86	21.41
22	2021-09-22	7.80	23.76	0.20
23	2021-09-23	11.89	38.29	0.20
24	2021-09-24	3.29	0.10	0.20
25	2021-09-25	3.48	0.68	0.20
26	2021-09-26	5.10	0.09	0.20
27	2021-09-27	5.89	0.10	0.20
28	2021-09-28	33.32	257.24	9.35
29	2021-09-29	55.79	522.70	37.62
30	2021-09-30	55.91	524.00	37.81

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_8_Process_Boiler_2- NOx_U	Stack_8_Process_Boiler_2- SO2_U	Stack_8_Process_Boiler_2- PM_U
Prescribed Standards	0 - 450	0 - 600	0 - 50
Maximum Data	186.21	357.47	40.69
Minimum Data	0.18	0.0	0.1
Geometric Mean	95.23	263.86	22.91
Median	81.44	292.48	20.2
Standard Deviation	76.14	99.97	14.71
Maximum Value At Time	2021-09-23	2021-09-16	2021-09-15
Minimum Value At Time	2021-09-18	2021-09-20	2021-09-20
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_8_Process_Boiler_2- NOx_U	Stack_8_Process_Boiler_2- SO2_U	Stack_8_Process_Boiler_2- PM_U
1	2021-09-01	13.06	215.47	10.04
2	2021-09-02	34.84	241.78	14.68
3	2021-09-03	26.29	237.74	14.03
4	2021-09-04	32.79	241.61	13.56
5	2021-09-05	20.91	225.67	11.03
6	2021-09-06	22.37	230.32	12.22
7	2021-09-07	22.36	228.19	12.53
8	2021-09-08	23.16	225.10	12.83
9	2021-09-09	36.48	241.45	15.50
10	2021-09-10	159.40	325.24	33.54
11	2021-09-11	184.03	332.72	35.57
12	2021-09-12	153.08	315.93	31.74

SI No	Time	Stack_8_Process_Boiler_2-NOx_U	Stack_8_Process_Boiler_2-SO2_U	Stack_8_Process_Boiler_2-PM_U
13	2021-09-13	154.94	320.41	30.97
14	2021-09-14	83.15	269.02	15.91
15	2021-09-15	173.59	344.55	40.69
16	2021-09-16	79.73	357.47	24.49
17	2021-09-17	2.00	62.68	1.00
18	2021-09-18	0.18	154.95	0.11
19	2021-09-19	0.18	7.91	0.16
20	2021-09-20	0.18	0.00	0.10
21	2021-09-21	43.04	223.04	7.24
22	2021-09-22	177.77	347.62	38.76
23	2021-09-23	186.21	350.49	39.42
24	2021-09-24	175.68	342.44	37.80
25	2021-09-25	171.62	345.47	38.25
26	2021-09-26	177.61	351.61	39.12
27	2021-09-27	183.05	354.95	40.40
28	2021-09-28	162.88	336.96	37.41
29	2021-09-29	185.41	348.45	40.68
30	2021-09-30	170.89	336.46	37.58

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
Prescribed Standards	0 - 50	0 - 600	0 - 450
Maximum Data	45.16	550.95	66.62
Minimum Data	0.02	3.74	66.57
Geometric Mean	19.87	253.38	66.59
Median	14.08	248.06	66.59
Standard Deviation	19.88	242.68	0.01
Maximum Value At Time	2021-09-23	2021-09-23	2021-09-12
Minimum Value At Time	2021-09-01	2021-09-01	2021-09-24
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

Sl No	Time	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
1	2021-09-01	0.02	3.74	66.58
2	2021-09-02	0.02	3.74	66.58
3	2021-09-03	0.02	3.74	66.59
4	2021-09-04	0.02	3.74	66.58
5	2021-09-05	0.02	3.74	66.59
6	2021-09-06	0.02	3.74	66.59
7	2021-09-07	0.03	3.75	66.60
8	2021-09-08	0.02	3.74	66.59
9	2021-09-09	0.02	3.75	66.59
10	2021-09-10	0.03	3.75	66.61
11	2021-09-11	0.87	21.34	66.61

SI No	Time	Stack_21_processboiler_Unit_3-PM_U	Stack_21_processboiler_Unit_3-SO2_U	Stack_21_processboiler_Unit_3-NOx_U
12	2021-09-12	8.50	165.27	66.62
13	2021-09-13	33.60	461.72	66.58
14	2021-09-14	19.65	330.86	66.59
15	2021-09-15	2.82	25.89	66.62
16	2021-09-16	30.23	383.26	66.58
17	2021-09-17	43.17	527.34	66.58
18	2021-09-18	42.69	525.91	66.58
19	2021-09-19	43.33	529.72	66.58
20	2021-09-20	43.26	530.13	66.59
21	2021-09-21	35.73	453.70	66.59
22	2021-09-22	43.55	531.02	66.58
23	2021-09-23	45.16	550.95	66.58
24	2021-09-24	41.46	516.66	66.57
25	2021-09-25	40.78	501.35	66.58
26	2021-09-26	43.23	520.21	66.58
27	2021-09-27	43.22	527.97	66.58
28	2021-09-28	31.91	395.80	66.61
29	2021-09-29	0.03	3.74	66.60
30	2021-09-30	2.57	61.01	66.60

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_9_Reheating_Furnance_Plate_Mill- SO2_U	Stack_9_Reheating_Furnance_Plate_Mill- NOx_U	Stack_9_Reheating_Furnance_Plate_Mill- PM_U
Prescribed Standards	0 -	0 -	0 - 50
Maximum Data	658.33	223.62	50.03
Minimum Data	434.67	2.55	28.87
Geometric Mean	570.17	166.19	32.29
Median	557.43	169.1	31.26
Standard Deviation	49.48	47.55	4.12
Maximum Value At Time	2021-09-14	2021-09-26	2021-09-01
Minimum Value At Time	2021-09-01	2021-09-01	2021-09-29
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

Sl No	Time	Stack_9_Reheating_Furnance_Plate_Mill- SO2_U	Stack_9_Reheating_Furnance_Plate_Mill- NOx_U	Stack_9_Reheating_Furnance_Plate_Mill- PM_U
1	2021-09-01	434.67	2.55	50.03
2	2021-09-02	493.97	59.67	41.37
3	2021-09-03	531.71	172.03	31.41
4	2021-09-04	554.43	142.29	31.16
5	2021-09-05	597.20	153.95	31.01
6	2021-09-06	568.93	172.04	30.60
7	2021-09-07	588.47	165.89	31.57
8	2021-09-08	623.66	159.69	31.27
9	2021-09-09	612.48	164.06	31.17
10	2021-09-10	603.73	167.33	31.96
11	2021-09-11	610.00	166.89	32.04
12	2021-09-12	653.10	161.24	31.25

Sl No	Time	Stack_9_Reheating_Furnance_Plate_Mill-SO2_U	Stack_9_Reheating_Furnance_Plate_Mill-NOx_U	Stack_9_Reheating_Furnance_Plate_Mill-PM_U
13	2021-09-13	647.48	221.28	31.02
14	2021-09-14	658.33	164.16	37.04
15	2021-09-15	545.95	121.03	32.72
16	2021-09-16	509.68	127.87	32.80
17	2021-09-17	537.45	115.43	31.83
18	2021-09-18	548.36	151.58	32.23
19	2021-09-19	556.30	170.88	31.10
20	2021-09-20	546.63	171.70	31.86
21	2021-09-21	537.95	171.72	33.80
22	2021-09-22	552.27	208.33	31.72
23	2021-09-23	556.87	209.97	29.81
24	2021-09-24	534.28	205.45	30.49
25	2021-09-25	585.74	214.82	29.95
26	2021-09-26	647.49	223.62	29.67
27	2021-09-27	572.11	214.04	29.54
28	2021-09-28	558.00	194.11	30.42
29	2021-09-29	581.68	208.66	28.87
30	2021-09-30	556.19	203.43	29.02

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_1_CPP_1_135MW-PM_U	Stack_1_CPP_1_135MW-SO2_U	Stack_1_CPP_1_135MW-NOx_U
Prescribed Standards	0 - 50	0 - 600	0 - 450
Maximum Data	24.28	299.12	94.65
Minimum Data	0.0	0.0	0.0
Geometric Mean	10.48	129.19	37.9
Median	12.51	154.28	48.35
Standard Deviation	9.77	120.41	34.26
Maximum Value At Time	2021-09-06	2021-09-06	2021-09-06
Minimum Value At Time	2021-09-09	2021-09-09	2021-09-10
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_1_CPP_1_135MW-PM_U	Stack_1_CPP_1_135MW-SO2_U	Stack_1_CPP_1_135MW-NOx_U
1	2021-09-01	21.69	267.32	69.06
2	2021-09-02	20.17	248.65	66.67
3	2021-09-03	20.58	253.65	72.11
4	2021-09-04	20.38	251.16	70.12
5	2021-09-05	19.83	244.38	68.66
6	2021-09-06	24.28	299.12	94.65
7	2021-09-07	20.27	249.86	77.37
8	2021-09-08	10.68	131.76	52.32
9	2021-09-09	0.00	0.00	0.50
10	2021-09-10	0.00	0.00	0.00
11	2021-09-11	0.00	0.00	0.00
12	2021-09-12	0.00	0.00	0.00
13	2021-09-13	0.00	0.00	0.00
14	2021-09-14	16.08	198.27	62.23
15	2021-09-15	18.88	232.84	70.28
16	2021-09-16	19.20	236.69	68.16
17	2021-09-17	19.96	246.00	71.85
18	2021-09-18	17.57	216.70	61.69
19	2021-09-19	19.18	236.52	63.56
20	2021-09-20	23.52	289.87	77.21
21	2021-09-21	3.25	40.23	29.74

SI No	Time	Stack_1_CPP_1_135MW-PM_U	Stack_1_CPP_1_135MW-SO2_U	Stack_1_CPP_1_135MW-NOx_U
22	2021-09-22	0.00	0.00	0.00
23	2021-09-23	0.00	0.00	0.00
24	2021-09-24	0.00	0.00	0.00
25	2021-09-25	0.03	0.32	1.32
26	2021-09-26	0.00	0.00	0.03
27	2021-09-27	14.34	176.80	44.38
28	2021-09-28	2.09	25.77	7.99
29	2021-09-29	0.00	0.00	0.00
30	2021-09-30	2.40	29.67	7.00

Report Details: JSPLAngul | 2021-11-29 11:08:56 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_3_CPP_3_135MW-PM_U	Stack_3_CPP_3_135MW-SO2_U	Stack_3_CPP_3_135MW-NOx_U
Prescribed Standards	0 - 50	0 - 600	0 - 450
Maximum Data	37.35	458.99	362.47
Minimum Data	0.07	0.68	231.95
Geometric Mean	24.17	296.97	316.16
Median	27.88	342.58	323.9
Standard Deviation	10.26	126.16	37.87
Maximum Value At Time	2021-09-04	2021-09-04	2021-09-26
Minimum Value At Time	2021-09-08	2021-09-08	2021-09-06
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_3_CPP_3_135MW-PM_U	Stack_3_CPP_3_135MW-SO2_U	Stack_3_CPP_3_135MW-NOx_U
1	2021-09-01	13.62	167.25	264.77
2	2021-09-02	20.86	256.25	282.40
3	2021-09-03	32.11	394.59	322.01
4	2021-09-04	37.35	458.99	344.50
5	2021-09-05	27.60	339.13	322.83
6	2021-09-06	4.33	53.08	231.95
7	2021-09-07	0.64	7.72	232.10
8	2021-09-08	0.07	0.68	233.95
9	2021-09-09	20.49	251.61	306.51
10	2021-09-10	23.20	285.07	312.62
11	2021-09-11	16.92	207.80	317.49
12	2021-09-12	28.16	346.03	334.00
13	2021-09-13	26.48	325.42	321.48
14	2021-09-14	11.58	142.14	289.72
15	2021-09-15	21.44	263.28	291.55
16	2021-09-16	22.97	282.22	308.72
17	2021-09-17	13.37	164.11	278.53
18	2021-09-18	28.97	355.92	324.98
19	2021-09-19	29.09	357.41	332.72
20	2021-09-20	20.67	253.98	325.86
21	2021-09-21	29.70	364.89	341.94

SI No	Time	Stack_3_CPP_3_135MW-PM_U	Stack_3_CPP_3_135MW-SO2_U	Stack_3_CPP_3_135MW-NOx_U
22	2021-09-22	31.97	392.78	344.58
23	2021-09-23	32.20	395.69	350.40
24	2021-09-24	34.10	419.05	348.31
25	2021-09-25	32.67	401.34	347.87
26	2021-09-26	32.68	401.53	362.47
27	2021-09-27	29.98	368.36	340.57
28	2021-09-28	32.87	403.88	356.76
29	2021-09-29	34.71	426.53	356.93
30	2021-09-30	34.37	422.34	356.24

Report Details: JSPLAngul | 2021-11-29 11:10:27 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_4_CPP_4_135MW-NOx_U	Stack_4_CPP_4_135MW-SO2_U	Stack_4_CPP_4_135MW-PM_U
Prescribed Standards	0 - 450	0 - 600	0 - 50
Maximum Data	355.47	435.68	35.58
Minimum Data	271.96	0.2	0.12
Geometric Mean	319.05	211.84	17.35
Median	329.34	287.94	23.54
Standard Deviation	29.3	154.79	12.6
Maximum Value At Time	2021-09-25	2021-09-09	2021-09-09
Minimum Value At Time	2021-09-01	2021-09-05	2021-09-01
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_4_CPP_4_135MW-NOx_U	Stack_4_CPP_4_135MW-SO2_U	Stack_4_CPP_4_135MW-PM_U
1	2021-09-01	271.96	0.23	0.12
2	2021-09-02	276.18	0.22	0.12
3	2021-09-03	281.03	0.22	0.12
4	2021-09-04	282.25	0.22	0.12
5	2021-09-05	284.05	0.20	0.12
6	2021-09-06	282.46	0.21	0.12
7	2021-09-07	292.85	284.70	23.28
8	2021-09-08	296.02	421.19	34.39
9	2021-09-09	301.15	435.68	35.58
10	2021-09-10	301.48	302.80	24.76
11	2021-09-11	301.41	253.96	20.78
12	2021-09-12	293.67	0.21	0.12
13	2021-09-13	289.41	0.21	0.12
14	2021-09-14	300.75	0.22	0.12
15	2021-09-15	326.42	22.47	1.93
16	2021-09-16	338.21	283.48	23.19
17	2021-09-17	344.33	270.81	22.16
18	2021-09-18	346.10	283.06	23.15
19	2021-09-19	340.16	330.23	26.99
20	2021-09-20	343.94	306.10	25.02
21	2021-09-21	332.25	298.81	24.43

SI No	Time	Stack_4_CPP_4_135MW-NOx_U	Stack_4_CPP_4_135MW-SO2_U	Stack_4_CPP_4_135MW-PM_U
22	2021-09-22	347.43	314.96	25.75
23	2021-09-23	348.24	316.08	25.84
24	2021-09-24	351.66	332.70	27.19
25	2021-09-25	355.47	324.37	26.51
26	2021-09-26	349.24	328.05	26.81
27	2021-09-27	343.01	325.52	26.61
28	2021-09-28	347.27	291.19	23.81
29	2021-09-29	350.47	300.64	24.58
30	2021-09-30	352.50	326.40	26.68

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_5_CPP_5_135MW-NOx_U	Stack_5_CPP_5_135MW-SO2_U	Stack_5_CPP_5_135MW-PM_U
Prescribed Standards	0 - 450	0 - 600	0 - 50
Maximum Data	121.54	525.23	42.8
Minimum Data	42.69	158.94	12.99
Geometric Mean	106.25	438.97	35.77
Median	107.45	450.16	36.68
Standard Deviation	15.2	71.25	5.8
Maximum Value At Time	2021-09-24	2021-09-04	2021-09-04
Minimum Value At Time	2021-09-14	2021-09-14	2021-09-14
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_5_CPP_5_135MW-NOx_U	Stack_5_CPP_5_135MW-SO2_U	Stack_5_CPP_5_135MW-PM_U
1	2021-09-01	106.87	447.57	36.47
2	2021-09-02	107.20	441.42	35.97
3	2021-09-03	118.50	491.06	40.01
4	2021-09-04	117.66	525.23	42.80
5	2021-09-05	101.82	413.25	33.68
6	2021-09-06	121.43	523.21	42.63
7	2021-09-07	101.77	421.86	34.38
8	2021-09-08	114.73	494.73	40.32
9	2021-09-09	120.86	468.38	38.18
10	2021-09-10	105.79	437.40	35.65
11	2021-09-11	92.39	356.49	29.06
12	2021-09-12	107.70	452.76	36.90
13	2021-09-13	105.14	412.23	33.59
14	2021-09-14	42.69	158.94	12.99
15	2021-09-15	76.69	300.42	24.50
16	2021-09-16	113.32	471.42	38.42
17	2021-09-17	105.41	430.45	35.08
18	2021-09-18	105.46	433.72	35.34
19	2021-09-19	108.76	454.27	37.02
20	2021-09-20	96.74	390.93	31.86
21	2021-09-21	111.17	455.43	37.12

SI No	Time	Stack_5_CPP_5_135MW-NOx_U	Stack_5_CPP_5_135MW-SO2_U	Stack_5_CPP_5_135MW-PM_U
22	2021-09-22	105.14	419.01	34.15
23	2021-09-23	101.59	416.82	33.97
24	2021-09-24	121.54	515.78	42.03
25	2021-09-25	114.05	463.70	37.79
26	2021-09-26	116.94	489.86	39.92
27	2021-09-27	115.66	494.57	40.30
28	2021-09-28	112.01	478.41	38.98
29	2021-09-29	111.89	471.33	38.41
30	2021-09-30	106.45	438.41	35.72

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_6_CPP_6_135MW-PM_U	Stack_6_CPP_6_135MW-NOx_U	Stack_6_CPP_6_135MW-SO2_U
Prescribed Standards	0 - 50	0 - 450	0 - 600
Maximum Data	32.27	107.31	395.55
Minimum Data	0.05	0.0	0.0
Geometric Mean	18.5	58.4	226.46
Median	24.28	71.76	297.48
Standard Deviation	11.63	35.94	142.76
Maximum Value At Time	2021-09-15	2021-09-13	2021-09-15
Minimum Value At Time	2021-09-30	2021-09-02	2021-09-02
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_6_CPP_6_135MW-PM_U	Stack_6_CPP_6_135MW-NOx_U	Stack_6_CPP_6_135MW-SO2_U
1	2021-09-01	1.23	10.82	14.36
2	2021-09-02	0.06	0.00	0.00
3	2021-09-03	0.06	0.00	0.00
4	2021-09-04	0.06	0.11	0.02
5	2021-09-05	9.40	34.39	114.59
6	2021-09-06	26.15	83.96	320.30
7	2021-09-07	25.34	84.21	310.40
8	2021-09-08	24.46	76.72	299.63
9	2021-09-09	13.96	46.99	170.60
10	2021-09-10	27.07	69.22	331.72
11	2021-09-11	28.26	75.44	346.24
12	2021-09-12	27.58	73.48	337.93
13	2021-09-13	31.86	107.31	390.55
14	2021-09-14	17.54	63.65	214.59
15	2021-09-15	32.27	96.80	395.55
16	2021-09-16	13.46	40.05	164.55
17	2021-09-17	21.43	59.28	262.39
18	2021-09-18	22.18	71.65	271.54
19	2021-09-19	27.37	95.68	335.36
20	2021-09-20	30.18	89.68	369.82
21	2021-09-21	28.82	91.08	353.13

SI No	Time	Stack_6_CPP_6_135MW-PM_U	Stack_6_CPP_6_135MW-NOx_U	Stack_6_CPP_6_135MW-SO2_U
22	2021-09-22	27.89	94.45	341.75
23	2021-09-23	26.44	86.66	323.99
24	2021-09-24	24.11	71.86	295.34
25	2021-09-25	28.61	82.74	350.63
26	2021-09-26	25.04	90.33	306.78
27	2021-09-27	14.06	55.42	171.91
28	2021-09-28	0.06	0.00	0.00
29	2021-09-29	0.06	0.00	0.00
30	2021-09-30	0.05	0.00	0.00

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	Stack_12_SMS-PM_U	Stack_12_SMS-SO2_U	Stack_12_SMS-NOx_U
Prescribed Standards	0 - 100	0 -	0 -
Maximum Data	38.28	21.32	11.56
Minimum Data	16.84	17.7	9.6
Geometric Mean	29.36	19.87	10.78
Median	31.68	20.08	10.88
Standard Deviation	6.68	0.79	0.43
Maximum Value At Time	2021-09-28	2021-09-24	2021-09-24
Minimum Value At Time	2021-09-04	2021-09-13	2021-09-13
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	Stack_12_SMS-PM_U	Stack_12_SMS-SO2_U	Stack_12_SMS-NOx_U
1	2021-09-01	24.78	19.47	10.53
2	2021-09-02	21.90	20.20	10.99
3	2021-09-03	18.58	20.30	10.97
4	2021-09-04	16.84	19.37	10.49
5	2021-09-05	20.13	19.78	10.72
6	2021-09-06	26.60	19.69	10.65
7	2021-09-07	24.58	19.61	10.60
8	2021-09-08	24.57	20.10	10.89
9	2021-09-09	26.53	19.34	10.39
10	2021-09-10	18.82	19.20	10.46
11	2021-09-11	21.63	18.90	10.25
12	2021-09-12	24.11	18.34	9.97
13	2021-09-13	22.79	17.70	9.60
14	2021-09-14	32.92	19.57	10.69
15	2021-09-15	30.34	20.07	11.01
16	2021-09-16	31.48	20.39	11.10
17	2021-09-17	34.24	20.54	11.19
18	2021-09-18	34.83	20.03	10.89
19	2021-09-19	36.12	19.46	10.50
20	2021-09-20	33.30	20.17	10.87
21	2021-09-21	31.88	18.83	10.27
22	2021-09-22	35.81	20.16	11.10
23	2021-09-23	33.84	21.17	11.54
24	2021-09-24	37.10	21.32	11.56

SI No	Time	Stack_12_SMS-PM_U	Stack_12_SMS-SO2_U	Stack_12_SMS-NOx_U
25	2021-09-25	35.74	21.01	11.33
26	2021-09-26	34.52	20.43	10.96
27	2021-09-27	35.87	20.09	10.79
28	2021-09-28	38.28	20.23	11.02
29	2021-09-29	37.95	20.19	10.98
30	2021-09-30	34.87	20.43	11.01

Report Details: JSPLAngul | 2021-11-29 11:17:58 | Custom Report



Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_29_SINTERING_DEDUSTING-PM_U
Prescribed Standards	0 - 50
Maximum Data	40.78
Minimum Data	0.0
Geometric Mean	11.79
Median	0.0
Standard Deviation	17.58
Maximum Value At Time	2021-09-25
Minimum Value At Time	2021-09-01
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

SI No	Time	STACK_29_SINTERING_DEDUSTING-PM_U
1	2021-09-01	0.00
2	2021-09-02	0.00
3	2021-09-03	0.00
4	2021-09-04	0.00
5	2021-09-05	0.00
6	2021-09-06	0.00
7	2021-09-07	0.00
8	2021-09-08	0.00
9	2021-09-09	0.00
10	2021-09-10	0.00
11	2021-09-11	0.00
12	2021-09-12	0.00
13	2021-09-13	0.00
14	2021-09-14	0.00
15	2021-09-15	0.00
16	2021-09-16	0.00
17	2021-09-17	0.00
18	2021-09-18	0.00
19	2021-09-19	0.00
20	2021-09-20	0.00
21	2021-09-21	12.53
22	2021-09-22	39.09
23	2021-09-23	36.60
24	2021-09-24	40.64

SI No	Time	STACK_29_SINTERING_DEDUSTING-PM_U
25	2021-09-25	40.78
26	2021-09-26	39.77
27	2021-09-27	38.87
28	2021-09-28	34.75
29	2021-09-29	35.61
30	2021-09-30	35.07

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_30_SINTER_PLANT_FLUX-PM_U
Prescribed Standards	0 - 50
Maximum Data	32.29
Minimum Data	6.33
Geometric Mean	11.98
Median	9.56
Standard Deviation	7.48
Maximum Value At Time	2021-09-01
Minimum Value At Time	2021-09-08
Valid Data Points	30
Total Data Points	30
Data Availability %	100.0%

SI No	Time	STACK_30_SINTER_PLANT_FLUX-PM_U
1	2021-09-01	32.29
2	2021-09-02	31.60
3	2021-09-03	31.27
4	2021-09-04	25.83
5	2021-09-05	6.75
6	2021-09-06	7.61
7	2021-09-07	6.43
8	2021-09-08	6.33
9	2021-09-09	8.40
10	2021-09-10	7.51
11	2021-09-11	8.87
12	2021-09-12	9.41
13	2021-09-13	10.61
14	2021-09-14	8.45
15	2021-09-15	9.12
16	2021-09-16	8.23
17	2021-09-17	8.94
18	2021-09-18	8.38
19	2021-09-19	9.87
20	2021-09-20	9.49
21	2021-09-21	11.28
22	2021-09-22	8.98
23	2021-09-23	9.63
24	2021-09-24	9.86

SI No	Time	STACK_30_SINTER_PLANT_FLUX-PM_U
25	2021-09-25	9.66
26	2021-09-26	11.81
27	2021-09-27	10.97
28	2021-09-28	10.14
29	2021-09-29	10.36
30	2021-09-30	11.20

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Real Time Data Acquisition And Monitoring

Site Name: M/s. Jindal Steel & Power Ltd.

Report: Custom Report

From Date: 2021/09/01 00:00:00 To Date : 2021/09/30 23:59:13

Description	STACK_ 28_SINTER_PROCESS-PM_U	STACK_ 28_SINTER_PROCESS-SO2_U	STACK_ 28_SINTER_PROCESS-NOx_U
Prescribed Standards	0 - 50	0 -	0 -
Maximum Data	68.1	506.74	573.0
Minimum Data	30.83	107.81	566.8
Geometric Mean	37.51	283.7	569.08
Median	36.34	278.6	568.76
Standard Deviation	6.38	119.15	1.51
Maximum Value At Time	2021-09-27	2021-09-25	2021-09-13
Minimum Value At Time	2021-09-14	2021-09-13	2021-09-25
Valid Data Points	30	30	30
Total Data Points	30	30	30
Data Availability %	100.0%	100.0%	100.0%

SI No	Time	STACK_ 28_SINTER_PROCESS-PM_U	STACK_ 28_SINTER_PROCESS-SO2_U	STACK_ 28_SINTER_PROCESS-NOx_U
1	2021-09-01	35.32	137.91	570.28
2	2021-09-02	40.34	165.71	570.14
3	2021-09-03	31.39	302.31	567.40
4	2021-09-04	37.77	330.10	567.40
5	2021-09-05	35.73	323.27	567.47
6	2021-09-06	33.73	271.93	570.38
7	2021-09-07	38.96	226.84	570.89
8	2021-09-08	36.70	290.74	568.93
9	2021-09-09	35.66	135.34	568.46
10	2021-09-10	33.10	110.44	567.55
11	2021-09-11	34.21	114.78	568.54

SI No	Time	STACK_28_SINTER_PROCESS-PM_U	STACK_28_SINTER_PROCESS-SO2_U	STACK_28_SINTER_PROCESS-NOx_U
12	2021-09-12	36.48	109.84	570.33
13	2021-09-13	34.45	107.81	573.00
14	2021-09-14	30.83	265.09	570.97
15	2021-09-15	33.54	274.58	570.17
16	2021-09-16	35.89	336.56	568.65
17	2021-09-17	35.88	325.49	568.73
18	2021-09-18	39.40	328.19	567.55
19	2021-09-19	42.21	206.28	569.57
20	2021-09-20	39.35	213.13	567.86
21	2021-09-21	41.12	272.57	570.03
22	2021-09-22	33.73	475.58	567.67
23	2021-09-23	37.63	484.58	567.40
24	2021-09-24	36.21	446.16	567.29
25	2021-09-25	35.72	506.74	566.80
26	2021-09-26	39.05	480.19	569.98
27	2021-09-27	68.10	409.40	571.06
28	2021-09-28	38.35	315.90	570.63
29	2021-09-29	37.82	260.80	568.51
30	2021-09-30	36.53	282.63	568.80

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030051 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120308 NABL ULR No. :TC592621000008542F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Blast Furnace Cast House East : 3.2 MTPA : -do- : - : 24 hrs : Stack attached to Blast Furnace Cast House : M.S. : 50 : 4.8 : 41 : To assess the pollution load : Bag Filter : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 58 : 14.11 : 791208.12 : 32 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	31
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	61

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030051 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120308 NABL ULR No. :TC592621000008542F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	34
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	2
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.6
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 21.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030060 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120311 NABL ULR No. :TC592621000008550F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of the Stack(cm) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Blast Furnace Cast House West : 3.2 MTPA : -do- : - : 24 hrs : Stack attached to Blast Furnace Cast House West : M.S. : 50 : 4.8 : 37 : To assess the pollution load : Bag Filter : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 60 : 16.03 : 893472.12 : 35 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	6.7
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	42

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030060 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120311 NABL ULR No. :TC592621000008550F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	26
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	36
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 24.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030063 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120312 NABL ULR No. :TC592621000008553F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Blast Furnace Pulvarised Coal Injection Stack : 3.2 MTPA : -do- : - : 24 hrs : Stack attached to Blast Furnace Pulvarised Coal Injection Stack : M.S. : 82 : 2.8 : 21 : To assess the pollution load : Bag Filter : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 81 : 12.76 : 211102 : 38 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	18
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	8

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030063 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120312 NABL ULR No. :TC592621000008553F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	18
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	34
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	12.4
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	7.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 26.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030059 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120310 NABL ULR No. :TC592621000008549F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Blast Furnace Stock House : 3.2 MTPA : -do- : - : 24 hrs : Stack attached to Blast Furnace Stock House : M.S. : 50 : 5.2 : 36 : To assess the pollution load : Bag Filter : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 54 : 16.16 : 1077969.57 : 32 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	23
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	BLQ (LOQ:2.0)

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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- The results relate to the item tested.

Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030059 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120310 NABL ULR No. :TC592621000008549F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	6
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	4
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 24.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030050 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120301 NABL ULR No. :TC592621000008541F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Blast Furnace Stove : 3.2 MTPA : -do- : Blast Furnace Gas : 24 hrs : Stack attached to Blast Furnace Stove : M.S. : 90.6 : 6 : 39 : To assess the pollution load : Cyclone & Wet Scrubber : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 119 : 17.98 : 441703 : 33 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	29
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	250 Max.	187

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030050 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120301 NABL ULR No. :TC592621000008541F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	150 Max.	128
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	955
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.8
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	9.0
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 21.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030050 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120301 NABL ULR No. :TC592621000008541F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Blast Furnace Stove : 3.2 MTPA : -do- : Blast Furnace Gas : 24 hrs : Stack attached to Blast Furnace Stove : M.S. : 90.6 : 6 : 39 : To assess the pollution load : Cyclone & Wet Scrubber : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 119 : 17.98 : 1244703.23 : 33 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	29
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	250 Max.	187

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030050 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120301 NABL ULR No. :TC592621000008541F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	150 Max.	128
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	955
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.8
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	9.0
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 21.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030049 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120300 NABL ULR No. :TC592621000008540F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: BOF Secondary Emission Stack : 3 MTPA : -do- : - : 24 hrs : Stack attached to BOF Secondary Emission : M.S. : 73 : 6.4 : 20 : To assess the pollution load : Bag Filter : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 66 : 16.13 : 1570015.20 : 42 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	100 Max.	24
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	3

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030049 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120300 NABL ULR No. :TC592621000008540F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	4
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	19
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 20.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030047 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120307 NABL ULR No. :TC592621000008538F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Coke Oven Battery-1 & 2 : 1 MTPA : -do- : Coke Oven Gas & 29900 Nm ³ /hr : 24 hrs : Stack attached to Coke Oven Battery-1 & 2 : RCC : 145 : 7.4 : 30 : To assess the pollution load : NA : - : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 184 : 5.92 : 523867 : 40 : 725

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	28
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	800 Max.	434

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030047 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120307 NABL ULR No. :TC592621000008538F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	500 Max.	145
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	384
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	10.23
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	10.5
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	7.6

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 17.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030048 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120299 NABL ULR No. :TC592621000008539F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Coke Oven Battery-3 & 4 : 1 MTPA : -do- : Coke Oven Gas & 21500 Nm ³ /hr : 24 hrs : Stack attached to Coke Oven Battery-3 & 4 : RCC : 145 : 7.4 : 22 : To assess the pollution load : NA : - : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 198 : 7.33 : 636025 : 36 : 725

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	26
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	800 Max.	312

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030048 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120299 NABL ULR No. :TC592621000008539F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	500 Max.	203
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	577
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	12.41
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	7.26
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	6.45

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 19.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030061 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120314 NABL ULR No. :TC592621000008551F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information :	
Name of the emission source monitored	: Charging Stack of Coke Oven 1 & 2
(a) Rated Capacity	: 1 MTPA
(b) Capacity on sampling day	: -
(c) Type of fuel used & its consumption	: -
(d) Normal operating schedule	: 24 hrs
2. Stack Identification	: Stack attached to Charging Stack of Coke Oven 1 & 2
3.Type of Stack/Duct	: M.S.
4.Stack Height from Ground Level(m)	: 30
Diameter of Stack (mtr)	: 1.3
(6) Sampling Duration(minutes)	: 24
Purpose of Monitoring	: To assess the pollution load
(8) Air Pollution control measure	: Bag Filter
(a) Status	: Working
(9) Fugitive Emission,if any	: Nil
Observations :	
Flue Gas Temperature, °C,Avg.	: 43
Flue Gas Velocity(m/s),Avg.	: 10.32
Volumetric Flow Rate(Nm ³ /hr.)	: 44339.64
Ambient Air Temperature, °C	: 34
Barometric Pressure, mmHg	: 725

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	7
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	BLQ (LOQ;2.0)

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030061 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120314 NABL ULR No. :TC592621000008551F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	4
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	12
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	1.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.4
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification. Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 26.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To	Sample Reg. No. :E01-2108030062 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120315 NABL ULR No. :TC592621000008552F Customer Ref. No.: WO Letter Dated :03.04.2021
Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information :	
Name of the emission source monitored	: Pushing Stack of Coke Oven 1 & 2
(a) Rated Capacity	: 1 MTPA
(b) Capacity on sampling day	: -
(c) Type of fuel used & its consumption	: -
(d) Normal operating schedule	: 24 hrs
2. Stack Identification	: Stack attached to Pushing Stack of Coke Oven 1 & 2
3.Type of Stack/Duct	: M.S.
4.Stack Height from Ground Level(m)	: 30
Diameter of Stack (mtr)	: 2.5
(6) Sampling Duration(minutes)	: 20
Purpose of Monitoring	: To assess the pollution load
(8) Air Pollution control measure	: Bag Filter
(a) Status	: Working
(9) Fugitive Emission,if any	: Nil
Observations :	
Flue Gas Temperature, °C,Avg.	: 40
Flue Gas Velocity(m/s),Avg.	: 12.46
Volumetric Flow Rate(Nm ³ /hr.)	: 199878.72
Ambient Air Temperature, °C	: 34
Barometric Pressure, mmHg	: 725

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	12
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	23

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030062 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120315 NABL ULR No. :TC592621000008552F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	18
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	6
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	1.0
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 26.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030053 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120309 NABL ULR No. :TC592621000008544F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: DRI Bottom Seal Gas Dust Collection Stack : 1.8 MTPA : -do- : - : 24 hrs : Stack attached to DRI Bottom Seal Gas Dust Collector : M.S. : 30 : 0.96 : 31 : To assess the pollution load : Wet Scrubber : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 55 : 18.82 : 43311.75 : 36 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	8
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	13

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030053 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120309 NABL ULR No. :TC592621000008544F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	BLQ (LOQ:2.0)
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	405
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.6
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	1.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 22.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030067 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120318 NABL ULR No. :TC592621000008556F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: DRI DE-5 : 1.8 MTPA : -do- : NA : 24 hrs : Stack attached to DRI DE-5 : M.S. : 41 : 1.6 : 23 : To assess the pollution load : Wet Scrubber : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 40 : 10.21 : 37892.22 : 30 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	25
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	3

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030067 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120318 NABL ULR No. :TC592621000008556F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	BLQ (LOQ:2.0)
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	2
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	0.8

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 28.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030052 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120302 NABL ULR No. :TC592621000008543F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: DRI Hot Transport Dust Collection Stack : 1.8 MTPA : -do- : - : 24 hrs : Stack attached to DRI Hot Transfer Dust Collector : M.S. : 29.6 : 0.96 : 25 : To assess the pollution load : Wet Scrubber : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 58 : 23.62 : 53791.55 : 35 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	7
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	BLQ (LOQ:2.0)

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030052 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120302 NABL ULR No. :TC592621000008543F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	4
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	336
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	1.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.0
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	1.4

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 22.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030054 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120303 NABL ULR No. :TC592621000008545F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: DRI Product Cooler Dust Collector Stack : 1.8 MTPA : -do- : - : 24 hrs : Stack attached to DRI Product Cooler Dust Collector : M.S. : 31 : 0.96 : 27 : To assess the pollution load : Wet Scrubber : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 67 : 22.49 : 49999.71 : 34 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	7
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	BLQ (LOQ:2.0)

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030054 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120303 NABL ULR No. :TC592621000008545F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	6
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	4
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.2
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	1.4

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 22.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030046 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120298 NABL ULR No. :TC592621000008537F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Lime Dolo Plant-Kiln-1 : 500 Ton/day : -do- : Coke Oven Gas & 2710 m3/hr : 24 hrs : Stack attached to Lime Dolo Plant Kiln No.1 : M.S. : 54 : 1.2 : 23 : To assess the pollution load : Bag Filter : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 78 : 11.62 : 38456.32 : 36 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	100 Max.	47
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	134

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030046 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120298 NABL ULR No. :TC592621000008537F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	70
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	87
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	13.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	6.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 17.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030056 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120305 NABL ULR No. :TC592621000008547F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Process Boiler Unit -1 : 180 TPH : 109 TPH : Coal-40 Ton/hr & Gas-1442 m3/hr : 24 hrs : Stack attached to Process Boiler, Unit -1 ESP : M.S. : 125 : 2.6 : 36 : To assess the pollution load : ESP : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 112 : 18.77 : 264401.33 : 33 : 724

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	50 Max.	19

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030056 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120305 NABL ULR No. :TC592621000008547F Customer Ref. No.: WO Letter Dated :03.04.2021
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b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	600 Max.	539
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	450 Max.	178
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	957
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	10.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	9.4
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 23.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030055 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120304 NABL ULR No. :TC592621000008546F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Process Boiler Unit -2 : 180 TPH : 101 TPH : Coal & 30 ton/hr : 24 hrs : Stack aattached to Process Boiler, Unit -2 ESP : M.S. : 125 : 2.6 : 45 : To assess the pollution load : ESP : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 105 : 9.03 : 129555.56 : 33 : 724

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	50 Max.	13

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030055 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120304 NABL ULR No. :TC592621000008546F Customer Ref. No.: WO Letter Dated :03.04.2021
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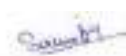
b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	600 Max.	489
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	450 Max.	139
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	957
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.4
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	8.4
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 23.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*******End Of Report*******


Saurabh Sharma
12-08-2021
Reviewer


12-08-2021
PremKumar
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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030064 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120316 NABL ULR No. :TC592621000008554F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Power Plant Unit 5 : 135 MW : 100 MW : Coal - 55 Ton/hr & Gas- 15000 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit 5 ESP : M.S. : 220 : 3.75 : 24 : To assess the pollution load : ESP : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 128 : 29.72 : 839607.30 : 39 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	50 Max.	37

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030064 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120316 NABL ULR No. :TC592621000008554F Customer Ref. No.: WO Letter Dated :03.04.2021
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b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	600 Max.	577
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	450 Max.	136
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	70
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.6
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	7.7
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	6.6

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 27.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*******End Of Report*******



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030065 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120317 NABL ULR No. :TC592621000008555F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Power Plant Unit 6 : 135 MW : 93 MW : Coal- 65 Ton/hr & Gas- 35000 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit 6 ESP : M.S. : 220 : 3.75 : 24 : To assess the pollution load : ESP : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 135 : 29.56 : 821888.70 : 39 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	50 Max.	34

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030065 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120317 NABL ULR No. :TC592621000008555F Customer Ref. No.: WO Letter Dated :03.04.2021
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b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	600 Max.	571
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	450 Max.	119
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	121
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	7.8
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	12.3
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	6.53

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 27.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*******End Of Report*******



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030058 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120306 NABL ULR No. :TC592621000008548F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Sinter Plant Process Stack : 4 MTPA : -do- : Coke Oven Gas & 1842 Nm ³ /hr : 24 hrs : Stack attached to Sinter Plant Process Stack ESP : RCC : 120 : 8.37 : 48 : To assess the pollution load : ESP : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 132 : 6.83 : 949138.16 : 32 : 725

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	45
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	310

Saurabh Sharma
12-08-2021
Reviewer

12-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030058 Sample Reg. Date :03-08-2021 Report Date :12-08-2021 Report No. :ICE-2108120306 NABL ULR No. :TC592621000008548F Customer Ref. No.: WO Letter Dated :03.04.2021
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c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	252
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	433
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.8
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	7.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 23.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*******End Of Report*******



Saurabh Sharma
12-08-2021
Reviewer



12-08-2021
PremKumar
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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060116 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140220 NABL ULR No. :TC592621000009979F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 25-08-2021 : 12:28 hrs to 12:56 hrs : Blast Furnace Cast House East : 3.2 MTPA : -do- : - : 24 hrs : Stack attached to Blast Furnace Cast House : M.S. : 50 : 4.8 : 28 : To assess the pollution load : Bag Filter : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 71 : 14.46 : 780192.13 : 37 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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- The results relate to the item tested.

Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060116 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140220 NABL ULR No. :TC592621000009979F Customer Ref. No.: WO Letter Dated :03.04.2021
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a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	43
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	22
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	15
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	52
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.2
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 25.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060129 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140232 NABL ULR No. :TC592621000009993F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 30-08-2021 : 11:20 hrs to 12:00 hrs : Blast Furnace Pulverized Coal Injection : 3.2 MTPA : -do- : - : 24 hrs : Stack attached to Blast Furnace Pulverized Coal Injection Stack : M.S. : 82 : 2.8 : 40 : To assess the pollution load : Bag Filter : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 81 : 6.92 : 123460.53 : 37 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060129 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140232 NABL ULR No. :TC592621000009993F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	10
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	55
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	24
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	69
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	12.0
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	7.6
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	4.3

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable. Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 30.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060117 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140251 NABL ULR No. :TC592621000009981F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 25-08-2021 : 16:27 hrs to 17:22 hrs : Blast Furnace Stove : 3.2 MTPA : -do- : Blast Furnace Gas : 24 hrs : Stack attached to Blast Furnace Stove : M.S. : 90.6 : 6 : 55 : To assess the pollution load : Cyclone & Wet Scrubber : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 121 : 5.60 : 412195.78 : 38 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060117 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140251 NABL ULR No. :TC592621000009981F Customer Ref. No.: WO Letter Dated :03.04.2021
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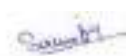
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	21
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	250 Max.	112
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	150 Max.	103
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	365
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	16.4
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	4.4
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 25.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060112 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140216 NABL ULR No. :TC592621000009971F Customer Ref. No.: Wo Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 23-08-2021 : 10:40 hrs to 11:21 hrs : BOF Secondary Emission Stack : 3 MTPA : -do- : - : 24 hrs : Stack attached to BOF Secondary Emission : M.S. : 73 : 6.4 : 41 : To assess the pollution load : Bag Filter : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 71 : 15.72 : 1505793.77 : 40 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060112 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140216 NABL ULR No. :TC592621000009971F Customer Ref. No.: Wo Letter Dated :03.04.2021
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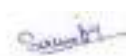
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	100 Max.	21
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	6
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	4
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	15
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.9
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 23.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060114 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140218 NABL ULR No. :TC592621000009976F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 24-08-2021 : 10:40 hrs to 11:36 hrs : Coke Oven Battery 1 & 2 : 1 MTPA : -do- : Coke Oven Gas & 29900 Nm ³ /hr : 24 hrs : Stack attached to Coke Oven Battery 1 & 2 : RCC : 145 : 7.4 : 56 : To assess the pollution load : NA : - : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 106 : 5.36 : 623875.97 : 38 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060114 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140218 NABL ULR No. :TC592621000009976F Customer Ref. No.: WO Letter Dated :03.04.2021
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a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	26
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	800 Max.	254
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	500 Max.	344
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	834
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	10.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	9.3
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 24.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
14-09-2021
Reviewer



14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060115 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140219 NABL ULR No. :TC592621000009975F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 24-08-2021 : 15:39 hrs to 16:05 hrs : Coke Oven Battery-3 & 4 : 1 MTPA : -do- : Coke Oven Gas & 21500 Nm ³ /hr : 24 hrs : Stack attached to Coke Oven Battery-3 & 4 : RCC : 145 : 7.4 : 26 : To assess the pollution load : NA : - : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 197 : 7.54 : 705748.17 : 38 : 725

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060115 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140219 NABL ULR No. :TC592621000009975F Customer Ref. No.: WO Letter Dated :03.04.2021
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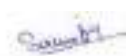
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	16
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	800 Max.	73
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	500 Max.	399
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	466
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	16.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	4.4
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 24.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060128 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140231 NABL ULR No. :TC592621000009992F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 29-08-2021 : 12:35 hrs to 12:59 hrs : Charging Stack of Coke Oven 1 & 2 : 1MTPA : - : - : 24 hrs : Stack attached to Charging Stack of Coke Oven 1 & 2 : M.S. : 30 : 1.3 : 24 : To assess the pollution load : Bag Filter : Working : - : 41 : 9.74 : 42172.32 : 36 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060128 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140231 NABL ULR No. :TC592621000009992F Customer Ref. No.: WO Letter Dated :03.04.2021
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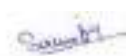
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	10
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	3
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	12
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	7
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.2
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 29.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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- The results relate to the item tested.

Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060127 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140230 NABL ULR No. :TC592621000009991F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 28-08-2021 : 11:10 hrs & 11:30 hrs : Pushing emission stack of Coke Oven 1 & 2 : 1 MTPA : -do- : - : 24 hrs : Pushing emission stack of Coke Oven 1 & 2 : M.S. : 30 : 2.5 : 20 : To assess the pollution load : Bag Filter : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 38 : 10.81 : 174765.93 : 36 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Pollution & Environment			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060127 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140230 NABL ULR No. :TC592621000009991F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	20
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	BLQ (LOQ:2.0)
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	9
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	3
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	2.0
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.6
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification. Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 28.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
14-09-2021
Reviewer



14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060108 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140250 NABL ULR No. :TC592621000009950F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 21-08-2021 : 10:30 hrs to 10:56 hrs : DRI Bottom Seal Gas Dust Collector : 1.8 MTPA : -do- : - : 24 hrs : Stack attached to DRI Bottom Seal Gas Dust Collector : M.S. : 30 : 0.96 : 26 : To assess the pollution load : Wet Scrubber : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 59 : 20.97 : 46828.93 : 41 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060108 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140250 NABL ULR No. :TC592621000009950F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	6
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	8
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	13
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	212
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	1.8
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	18.4
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 21.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060107 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140249 NABL ULR No. :TC592621000009949F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 20-08-2021 : 15:30 hrs to 16:11 hrs : DRI DE-5 : 1.8 MTPA : -do- : - : 24 hrs : Stack attached to DRI DE-5 : M.S. : 41 : 1.6 : 41 : To assess the pollution load : Wet Scrubber : Working : Nil : 43 : 11.92 : 77899.62 : 34 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060107 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140249 NABL ULR No. :TC592621000009949F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	32
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	BLQ (LOQ:2.0)
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	3
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	6
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.7
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 20.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
14-09-2021
Reviewer



14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060109 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140213 NABL ULR No. :TC592621000009951F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 21-08-2021 : 11:25 hrs to 11:48 hrs : DRI Hot Transport Dust Collector Stack : 1.8 MTPA : -do- : - : 24 hrs : Stack attached to DRI Hot Transfer Dust Collector : M.S. : 29.6 : 0.96 : 23 : To assess the pollution load : Wet Scrubber : Working : Nil : 59 : 22.90 : 52080.10 : 41 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060109 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140213 NABL ULR No. :TC592621000009951F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	8
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	3
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	7
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	29
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.6
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 21.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060106 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140212 NABL ULR No. :TC592621000009948F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 20-08-2021 : 11:35 hrs to 11:58 hrs : DRI Product Cooler Dust Collector : 1.8 MTPA : -do- : - : 24 hrs : Stack attached to DRI Product Cooler Dust Collector : M.S. : 31 : 0.96 : 23 : To assess the pollution load : Wet Scrubber : Working : Nil : 69 : 22.64 : 49215.17 : 34 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060106 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140212 NABL ULR No. :TC592621000009948F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	12
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	BLQ (LOQ:2.0)
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	4
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	8
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.7
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 20.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
14-09-2021
Reviewer



14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060111 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140215 NABL ULR No. :TC592621000009968F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 21-08-2021 : 16:15 hrs to 16:52 hrs : Lime Dolo Plant Kiln-1 : 500 TPD : -do- : Coke Oven & 4840 Nm ³ /hr : 24 hrs : Stack attached to Lime Dolo Plant Kiln-1 : M.S. : 54 : 1.2 : 37 : To assess the pollution load : Bag Filter : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 88 : 16.15 : 51967.76 : 39 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060111 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140215 NABL ULR No. :TC592621000009968F Customer Ref. No.: WO Letter Dated :03.04.2021
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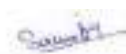
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	100 Max.	82
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	6
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	53
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	386
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	6.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	11.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 21.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060110 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140214 NABL ULR No. :TC592621000009964F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 21-08-2021 : 15:20 hrs to 16:13 hrs : Lime Dolo Plant Kiln-2 : 500 TPD : -do- : Mixed Gas & 2705 Nm ³ /hr : 24 hrs : Stack attached to Lime Dolo Plant Kiln-2 : M.S. : 54 : 1.2 : 53 : To assess the pollution load : Bag Filter : Working : Nil : 39 : 12.01 : 38118.05 : 39 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060110 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140214 NABL ULR No. :TC592621000009964F Customer Ref. No.: WO Letter Dated :03.04.2021
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a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	100 Max.	33
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	40
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	53
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	156
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	4.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	14.9
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	2.74

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 21.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060121 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140224 NABL ULR No. :TC592621000009985F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 26-08-2021 : 16:56 hrs to 17:32 hrs : Process Boiler Unit-1 : 180 TPH : 109 TPH : Coal-40 Ton/hr & Gas-1442 Nm ³ /hr : 24 hrs : Stack attached to Process Boiler Unit-1, ESP : M.S. : 125 : 2.6 : 36 : To assess the pollution load : ESP : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 123 : 18.36 : 252136.45 : 38 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060121 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140224 NABL ULR No. :TC592621000009985F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	Max. 50	31
b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	Max. 600	531
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	Max. 450	197
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	357
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	8.3
g.	Moisture, % by mass	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 26.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060119 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140222 NABL ULR No. :TC592621000009983F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 27-08-2021 : 15:25 hrs to 15:50 hrs : Process Boiler Unit-2 : 180 TPH : 101 TPH : Coal & 30 Ton/hr : 24 hrs : Stack attached to Process Boiler Unit-2, ESP : M.S. : 125 : 2.6 : 25 : To assess the pollution load : ESP : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 128 : 15.35 : 208171.92 : 38 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060119 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140222 NABL ULR No. :TC592621000009983F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	Max. 50	39
b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	Max. 600	517
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	Max. 450	251
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	341
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.4
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	8.3
g.	Moisture, % by mass	IS: 11255 (P-3)	Not Specified	2.0

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 27.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060125 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140228 NABL ULR No. :TC592621000009989F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 27-08-2021 : 16:31 hrs to 16:55 hrs : Power Plant Unit-1 : 135 MW : 98 MW : Coal- 65 TPH & Gas- 25000 Nm3/hr : 24 hrs : Stack attached to Power Plant Unit-1, ESP : M.S. : 220 : 3.75 : 24 : To assess the pollution load : ESP : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 128 : 29.86 : 843562.39 : 36 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060125 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140228 NABL ULR No. :TC592621000009989F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	Max. 50	39
b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	Max. 600	469
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	Max. 450	319
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	26
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.6
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	7.2
g.	Moisture, % by mass	IS: 11255 (P-3)	Not Specified	5.9

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 27.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060124 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140227 NABL ULR No. :TC592621000009987F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 27-08-2021 : 13:20 hrs to 13:44 hrs : Power Plant Unit-5 : 135 MW : 100 MW : Coal-55 Ton/hr & Gas-15000 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit-5, ESP : M.S. : 220 : 3.75 : 24 : To assess the pollution load : ESP : Working : Nil : 136 : 19.14 : 530139.79 : 37 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060124 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140227 NABL ULR No. :TC592621000009987F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	Max. 50	26
b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	Max. 600	576
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	Max. 450	212
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	18
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.8
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	8.6
g.	Moisture, % by mass	IS: 11255 (P-3)	Not Specified	4.7

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 27.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060122 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140225 NABL ULR No. :TC592621000009986F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 27-08-2021 : 12:10 hrs to 12:37 hrs : Power Plant Unit-6 : 135 MW : 93 MW : Coal- 65 Ton/hr & Gas- 35000 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit-6, ESP : M.S. : 220 : 3.75 : 27 : To assess the pollution load : ESP : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 130 : 25.60 : 719625.75 : 37 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060122 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140225 NABL ULR No. :TC592621000009986F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	Max. 50	23
b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	Max. 600	505
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	Max. 450	237
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	19
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	7.0
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	13.0
g.	Moisture, % by mass	IS: 11255 (P-3)	Not Specified	5.8

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 27.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060118 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140221 NABL ULR No. :TC592621000009982F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 26-08-2021 : 11:50 hrs to 12:16 hrs : Sinter Plant Process : 4 MTPA : -do- : Coke Oven Gas & 1842 Nm ³ /hr : 24 hrs : Stack attached to Sinter Plant Process, ESP : RCC : 120 : 8.37 : 26 : To assess the pollution load : ESP : Working : - : 137 : 6.37 : 875624.57 : 33 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060118 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140221 NABL ULR No. :TC592621000009982F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	29
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	273
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	183
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	396
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.3
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	7.3
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 26.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
14-09-2021
Reviewer



14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060113 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140217 NABL ULR No. :TC592621000009973F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 23-08-2021 : 15:30 hrs to 16:01 hrs : Steel Melting Shop : - : - : - : 24 hrs : Stack attached to FES of Steel Melting Shop : M.S. : 70 : 5.9 : 31 : To assess the pollution load : Bag Filter : Working : - : 90 : 18.46 : 1426061.76 : 41 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060113 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140217 NABL ULR No. :TC592621000009973F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	37
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	12
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	9
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	363
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.6
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 23.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
14-09-2021
Reviewer


14-09-2021
PremKumar
[Authorized Signatory]

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- The results relate to the item tested.

Test Report

Document QF : 2501

Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291100 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060249 NABL ULR No. :TC592621000011409F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 24-09-2021 : 10:33 hrs to 11:13 hrs : Blast Furnace Cast House East : 3.5 MTPA : -do- : - : 24 hrs : Stack attached to Blast Furnace Cast House East : M.S. : 50 : 4.8 : 40 : To assess the pollution load : Bag Filter : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 72 : 14.17 : 762329.05 : 35 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291100 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060249 NABL ULR No. :TC592621000011409F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm3	IS:11255(P-1)	50 Max.	12
b.	Sulphur Dioxide(SO ₂),mg/Nm3	IS:11255(P-2)	Not Specified	2
c.	Oxides of Nitrogen(NO2),mg/Nm3	IS:11255(P-7)	Not Specified	4
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	44
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 24.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291101 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060250 NABL ULR No. :TC592621000011407F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 24-09-2021 : 15:10 hrs to 16:00 hrs : Blast Furnace Pulvarised Coal Injection Stack : 3.2 MTPA : -do- : - : 24 hrs : Stack attached to Blast Furnace Pulvarised Coal Injection Stack : M.S. : 82 : 2.8 : 50 : To assess the pollution load : Bag Filter : Working : - : 85 : 5.76 : 101616.62 : 35 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291101 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060250 NABL ULR No. :TC592621000011407F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Group : Atmospheric Pollution				
1. General Parameters				
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	9
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	6
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	4
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	142
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.6
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 24.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291102 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060251 NABL ULR No. :TC592621000011431F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information :	
Date of Monitoring	: 24-09-2021
Time of Monitoring	: 16:44 hrs to 17:20 hrs
Name of the emission source monitored	: Blast Furnace Stock House
(a) Rated Capacity	: 3.2 MTPA
(b) Capacity on sampling day	: -do-
(c) Type of fuel used & its consumption	: -
(d) Normal operating schedule	: 24 hrs
2. Stack Identification	: Stack attached to Blast Furnace Stock House
3.Type of Stack/Duct	: M.S.
4.Stack Height from Ground Level(m)	: 50
Diameter of Stack (mtr)	: 5.2
(6) Sampling Duration(minutes)	: 36
Purpose of Monitoring	: To assess the pollution load
(8) Air Pollution control measure	: Bag Filter
(a) Status	: Working
(9) Fugitive Emission,if any	: -
Observations :	
Flue Gas Temperature, °C,Avg.	: 51
Flue Gas Velocity(m/s),Avg.	: 14.80
Volumetric Flow Rate(Nm ³ /hr.)	: 995021.88
Ambient Air Temperature, °C	: 36
Barometric Pressure, mmHg	: 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291102 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060251 NABL ULR No. :TC592621000011431F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Group : Atmospheric Pollution				
1. General Parameters				
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	21
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	6
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	4
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	4
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.6
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 24.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291099 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060248 NABL ULR No. :TC592621000011404F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 23-09-2021 : 15:35 hrs to 17:55 hrs : Blast Furnace Stove : 3.2 MTPA : -do- : Blast Furnace Gas : 24 hrs : Stack attached to Blast Furnace Stove : M.S. : 90.6 : 6 : 140 : To assess the pollution load : Cyclone & Wet Scrubber : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 126 : 5.91 : 429562.47 : 36 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291099 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060248 NABL ULR No. :TC592621000011404F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm3	IS:11255(P-1)	50 Max.	11
b.	Sulphur Dioxide(SO ₂),mg/Nm3	IS:11255(P-2)	250 Max.	166
c.	Oxides of Nitrogen(NO2),mg/Nm3	IS:11255(P-7)	150 Max.	94
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	346
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	12.9
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	6.7
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010, Sample collected by lab rep. on dated 23.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291083 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060233 NABL ULR No. :TC592621000011424F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 19-09-2021 : 10:20 hrs to 10:53 hrs : Basic Oxygen Furnace Secondary Emission Stack : 3 MTPH : -do- : - : 24 hrs : Stack attached to Basic Oxygen Furnace Secondary Emission : M.S. : 73 : 6.4 : 33 : To assess the pollution load : Bag Filter : Working : Nil : 69 : 7.70 : 740862.14 : 36 : 725

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291083 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060233 NABL ULR No. :TC592621000011424F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm3	IS:11255(P-1)	100 Max.	12
b.	Sulphur Dioxide(SO ₂),mg/Nm3	IS:11255(P-2)	Not Specified	3
c.	Oxides of Nitrogen(NO2),mg/Nm3	IS:11255(P-7)	Not Specified	6
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	12
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 16.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291088 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060238 NABL ULR No. :TC592621000011432F Customer Ref. No.: PO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 20-09-2021 : 10:15 hrs to 10:47 hrs : Coke Oven Battery 1 & 2 : 1MTPA : -do- : Coke Oven Gas/ BF Gas & 43000 Nm ³ /hr : 24 hrs : Stack attached to Coke Oven Battery 1 & 2 : RCC : 145 : 7.4 : 32 : To assess the pollution load : NA : - : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 148 : 5.88 : 615276.21 : 36 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291088 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060238 NABL ULR No. :TC592621000011432F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm3	IS:11255(P-1)	50 Max.	11
b.	Sulphur Dioxide(SO ₂),mg/Nm3	IS:11255(P-2)	800 Max.	307
c.	Oxides of Nitrogen(NO2),mg/Nm3	IS:11255(P-7)	500 Max.	244
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	4012
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.4
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	4.9
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 20.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291091 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060240 NABL ULR No. :TC592621000011415F Customer Ref. No.: PO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 21-09-2021 : 10:55 hrs to 11:24 hrs : Coke Oven Battery 3 & 4 : 1 MTPA : -do- : CO Gas/ BF Gas & 45000 Nm ³ /hr : 24 hrs : Stack attached to Coke Oven Battery 3 & 4 : RCC : 145 : 7.4 : 29 : To assess the pollution load : NA : - : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 201 : 7.63 : 708145.45 : 35 : 725

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291091 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060240 NABL ULR No. :TC592621000011415F Customer Ref. No.: PO Letter Dated :03.04.2021
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	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm3	IS:11255(P-1)	50 Max.	25
b.	Sulphur Dioxide(SO ₂),mg/Nm3	IS:11255(P-2)	800 Max.	424
c.	Oxides of Nitrogen(NO2),mg/Nm3	IS:11255(P-7)	500 Max.	336
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	4736
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.8
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	8.9
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	3.8

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 21.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291090 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060239 NABL ULR No. :TC592621000011423F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 20-09-2021 : 12:35 hrs to 13:01 hrs : Charging Emission Stack of Coke Oven Battery 1 & 2 : 1 MTPA : -do- : Charging Emission Stack of Coke Oven Battery 1 & 2 : 24 hrs : Stack attached to Charging Stack of Coke Oven 1 & 2 : M.S. : 30 : 1.6 : 26 : To assess the pollution load : Bag Filter : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 38 : 9.28 : 61452.42 : 36 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291090 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060239 NABL ULR No. :TC592621000011423F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm3	IS:11255(P-1)	50 Max.	12
b.	Sulphur Dioxide(SO ₂),mg/Nm3	IS:11255(P-2)	Not Specified	16
c.	Oxides of Nitrogen(NO2),mg/Nm3	IS:11255(P-7)	Not Specified	6
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	8
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	1.5
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 20.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291089 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060264 NABL ULR No. :TC592621000011439F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information :	
Date of Monitoring	: 20-09-2021
Time of Monitoring	: 11:05 hrs to 11:55 hrs
Name of the emission source monitored	: Pushing Emission Stack of Coke Oven 1 & 2
(a) Rated Capacity	: 1 MTPA
(b) Capacity on sampling day	: -do-
(c) Type of fuel used & its consumption	: -
(d) Normal operating schedule	: 24 hrs
2. Stack Identification	: Pushing Emission Stack of Coke Oven 1 & 2
3.Type of Stack/Duct	: M.S.
4.Stack Height from Ground Level(m)	: 30
Diameter of Stack (mtr)	: 2.5
(6) Sampling Duration(minutes)	: 50
Purpose of Monitoring	: To assess the pollution load
(8) Air Pollution control measure	: Bag Filter
(a) Status	: Working
(9) Fugitive Emission,if any	: -
Observations :	
Flue Gas Temperature, °C,Avg.	: 40
Flue Gas Velocity(m/s),Avg.	: 10.36
Volumetric Flow Rate(Nm ³ /hr.)	: 166191.29
Ambient Air Temperature, °C	: 36
Barometric Pressure, mmHg	: 725

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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--	--

Group : Atmospheric Pollution				
1. General Parameters				
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	29
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	3
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	24
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	42
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	1.1
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 20.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291082 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060232 NABL ULR No. :TC592621000011420F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information :	
Date of Monitoring	: 15-09-2021
Time of Monitoring	: 10:50 hrs to 11:16 hrs
Name of the emission source monitored	: DRI Product Cooler Dust Collector
(a) Rated Capacity	: 1.8 MTPA
(b) Capacity on sampling day	: -do-
(c) Type of fuel used & its consumption	: -
(d) Normal operating schedule	: 24 hrs
2. Stack Identification	: Stack attached to DRI Product Cooler Dust Collector
3.Type of Stack/Duct	: M.S.
4.Stack Height from Ground Level(m)	: 31
Diameter of Stack (mtr)	: 0.96
(6) Sampling Duration(minutes)	: 26
Purpose of Monitoring	: To assess the pollution load
(8) Air Pollution control measure	: Wet Scrubber
(a) Status	: Working
(9) Fugitive Emission,if any	: Nil
Observations :	
Flue Gas Temperature, °C,Avg.	: 68
Flue Gas Velocity(m/s),Avg.	: 23.19
Volumetric Flow Rate(Nm ³ /hr.)	: 50558.60
Ambient Air Temperature, °C	: 35
Barometric Pressure, mmHg	: 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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--	--

Group : Atmospheric Pollution				
1. General Parameters				
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	10
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	4
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	17
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	8
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	<0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 15.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Document QF : 2501

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291084 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060234 NABL ULR No. :TC592621000011421F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 18-09-2021 : 10:40 hrs to 10:09 hrs : Lime Dolo Plant Kiln-1 : 500 TPD : 460 TPD : Mixed Gas & 5600 Nm ³ /hr : 24 hrs : Stack attached to Lime Dolo Plant Kiln-1 : M.S. : 52 : 1.2 : 29 : To assess the pollution load : Bag Filter : Working : Nil : 97 : 9.87 : 30902.20 : 36 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291084 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060234 NABL ULR No. :TC592621000011421F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Group : Atmospheric Pollution				
1. General Parameters				
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	100 Max.	45
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	13
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	45
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	97
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	14.3
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	6.1
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	2.3

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 18.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291085 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060235 NABL ULR No. :TC592621000011425F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 18-09-2021 : 12:20 hrs to 12:50 hrs : Lime Dolo Plant Kiln-2 : 500 TPD : 460 TPD : Mixed Gas & 58000 Nm ³ /hr : 24 hrs : Stack attached to Lime Dolo Plant Kiln-2 : M.S. : 52 : 1.2 : 30 : To assess the pollution load : Bag Filter : Working : Nil : 100 : 9.84 : 30560.48 : 36 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291085 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060235 NABL ULR No. :TC592621000011425F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Group : Atmospheric Pollution				
1. General Parameters				
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	100 Max.	21
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	16
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	48
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	87
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	13.4
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	5.8
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	2.5

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 18.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****


Saurabh Sharma
06-10-2021
Reviewer


06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291086 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060236 NABL ULR No. :TC592621000011428F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 18-09-2021 : 15:30 hrs to 16:14 hrs : Process Boiler Unit-3 : 180 TPH : 150 TPH : Coal- 40 TPH & Mixed Gas- 2600 Nm ³ /hr : 24 hrs : Stack attached to Process Boiler Unit-3, ESP : M.S. : 125 : 2.6 : 44 : To assess the pollution load : ESP : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 121 : 15.70 : 216701.33 : 35 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291086 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060236 NABL ULR No. :TC592621000011428F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	Max. 50	12
b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	Max. 600	552
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	Max. 450	127
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	340
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	12.01
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	6.5
g.	Moisture, % by mass	IS: 11255 (P-3)	Not Specified	2.3

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA-1986/PCLS/2010, Sample collected by lab rep. on dated 18.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291095 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060244 NABL ULR No. :TC592621000011388F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information :	
Date of Monitoring	: 23-09-2021
Time of Monitoring	: 11:35 hrs to 12:07 hrs
Name of the emission source monitored	: Power Plant Unit-3
(a) Rated Capacity	: 135 MW
(b) Capacity on sampling day	: 115 MW
(c) Type of fuel used & its consumption	: Coal- 80 TPH & Coke Oven Gas- 8000 Nm ³ /hr
(d) Normal operating schedule	: 24 hrs
2. Stack Identification	: Stack attached to Power Plant Unit-3, ESP
3.Type of Stack/Duct	: M.S.
4.Stack Height from Ground Level(m)	: 220
Diameter of Stack (mtr)	: 3.75
(6) Sampling Duration(minutes)	: 32
Purpose of Monitoring	: To assess the pollution load
(8) Air Pollution control measure	: ESP
(a) Status	: Working
(9) Fugitive Emission,if any	: -
Observations :	
Flue Gas Temperature, °C,Avg.	: 126
Flue Gas Velocity(m/s),Avg.	: 21.83
Volumetric Flow Rate(Nm ³ /hr.)	: 618948.94
Ambient Air Temperature, °C	: 36
Barometric Pressure, mmHg	: 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291095 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060244 NABL ULR No. :TC592621000011388F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	Max. 50	10
b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	Max. 600	534
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	Max. 450	191
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	24
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.7
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	9.0
g.	Moisture, % by mass	IS: 11255 (P-3)	Not Specified	2.6

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 23.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291097 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060246 NABL ULR No. :TC592621000011410F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 23-09-2021 : 12:55 hrs to 13:31 hrs : Power Plant Unit-4 : 135 MW : 85 MW : Coal- 61 TPH & Coke Oven Gas- 6800 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit-4, ESP : M.S. : 220 : 3.75 : 36 : To assess the pollution load : ESP : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 130 : 24.75 : 695731.93 : 36 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291097 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060246 NABL ULR No. :TC592621000011410F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter, mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-1)	Max. 50	44
b.	Sulphur Dioxide (SO ₂), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-2)	Max. 600	592
c.	Oxides of Nitrogen (NO _x), mg/Nm ³ (Corrected to 6% O ₂ on dry basis)	IS:11255(P-7)	Max. 450	120
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	7
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	11.1
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	8.6
g.	Moisture, % by mass	IS: 11255 (P-3)	Not Specified	2.9

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 23.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291094 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060243 NABL ULR No. :TC592621000011416F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 22-07-2021 : 10:15 hrs to 10:40 hrs : Sinter Plant Dedusting : 4 MTPA : -do- : Coke Oven Gas & 2000 Nm ³ /hr : 24 hrs : Stack attached to Sinter Plant Dedusting : M.S. : 80 : 4.4 : 25 : To assess the pollution load : Bag Filter : Working : - : 68 : 5.88 : 268928.94 : 35 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291094 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060243 NABL ULR No. :TC592621000011416F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Group : Atmospheric Pollution				
1. General Parameters				
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	48
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	4
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	5
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	7
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	,0.2
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	20.7
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 22.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291093 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060242 NABL ULR No. :TC592621000011387F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 22-09-2021 : 15:10 hrs to 15:38 hrs : Sinter Plant Process Stack : 4 MTPA : -do- : Coke Oven Gas & 2000 Nm ³ /hr : 24 hrs : Stack attached to Sinter Plant Process Stack, ESP : RCC : 120 : 8.37 : 28 : To assess the pollution load : ESP : Working : - : 141 : 6.55 : 891668.30 : 34 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291093 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060242 NABL ULR No. :TC592621000011387F Customer Ref. No. :PO Letter Dated :03.04.2021
--	--

Group : Atmospheric Pollution				
1. General Parameters				
a.	Particulate Matter,mg/Nm ³	IS:11255(P-1)	50 Max.	42
b.	Sulphur Dioxide(SO ₂),mg/Nm ³	IS:11255(P-2)	Not Specified	206
c.	Oxides of Nitrogen(NO ₂),mg/Nm ³	IS:11255(P-7)	Not Specified	181
d.	Carbon Monoxide(as CO)(mg/Nm ³)	IS:13270	Not Specified	492
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	12.4
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	6.7
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	2.6

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 22.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS : N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291092 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060241 NABL ULR No. :TC592621000011418F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information :	
Date of Monitoring	: 21-09-2021
Time of Monitoring	: 15:45 hrs to 16:19 hrs
Name of the emission source monitored	: Steel Melting Shop (SMS)
(a) Rated Capacity	: 250 Ton/Heat
(b) Capacity on sampling day	: 180 Ton/Heat
(c) Type of fuel used & its consumption	: -
(d) Normal operating schedule	: 24 hrs
2. Stack Identification	: Stack attached to Steel Melting Shop (SMS)
3.Type of Stack/Duct	: M.S.
4.Stack Height from Ground Level(m)	: 70
Diameter of Stack (mtr)	: 5.9
(6) Sampling Duration(minutes)	: 34
Purpose of Monitoring	: To assess the pollution load
(8) Air Pollution control measure	: Bag Filter
(a) Status	: Working
(9) Fugitive Emission,if any	: Nil
Observations :	
Flue Gas Temperature, °C,Avg.	: 81
Flue Gas Velocity(m/s),Avg.	: 17.82
Volumetric Flow Rate(Nm ³ /hr.)	: 1411619.67
Ambient Air Temperature, °C	: 36
Barometric Pressure, mmHg	: 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291092 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060241 NABL ULR No. :TC592621000011418F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Particulate Matter,mg/Nm3	IS:11255(P-1)	50 Max.	26
b.	Sulphur Dioxide(SO ₂),mg/Nm3	IS:11255(P-2)	Not Specified	3
c.	Oxides of Nitrogen(NO2),mg/Nm3	IS:11255(P-7)	Not Specified	10
d.	Carbon Monoxide(as CO)(mg/Nm3)	IS:13270	Not Specified	363
e.	Carbon Dioxide (CO ₂), %	IS:13270	Not Specified	1.82
f.	Oxygen (O ₂), % v/v	IS:13270	Not Specified	19.1
g.	Moisture Content (% by mass)	IS: 11255 (P-3)	Not Specified	<0.2

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 21.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Ref. No. EMD/LAB/MEF/21-22/03

Date: 05.11.2020

Monthly Summary of Online Ambient Air Quality Monitoring Report
(Apr'21 – Sept'21)

Month	Location		PM10	PM2.5	SO2	NOx	NO2	CO	NH3	O3	BENZ
			µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	µg/m3	µg/m3
Apr	Central Utility Building	Min	55.2	25.6	5.9	9.5	4.6	0.3	4.8	4.5	0.0
		Max	77.5	45.5	6.9	10.2	5.3	0.9	5.1	6.8	0.0
		Avg.	68.2	35.0	6.3	9.8	4.9	0.6	5.0	5.8	0.0
		SD	4.3	3.2	0.3	0.1	0.2	0.2	0.1	0.6	0.0
	CGP	Min	61.9	31.3	6.8	9.0	3.6	0.4	4.3	7.7	0.0
		Max	79.7	50.1	11.9	11.9	5.9	0.8	6.2	13.8	0.0
		Avg.	70.9	38.6	9.0	10.6	4.5	0.6	5.1	11.2	0.0
		SD	4.0	5.2	1.3	0.8	0.4	0.1	0.4	1.5	0.0
	Security Barrack	Min	61.5	31.8	7.1	8.1	3.5	0.3	5.0	10.1	0.0
		Max	84.1	46.9	7.7	12.2	7.2	0.9	8.3	14.4	0.0
		Avg.	71.4	40.8	7.5	9.4	5.5	0.5	6.7	12.7	0.0
		SD	5.1	4.1	0.2	1.1	0.8	0.1	0.8	1.2	0.0
	Township	Min	57.3	27.4	4.4	10.0	2.3	0.3	6.0	4.3	0.0
		Max	73.1	41.6	7.9	16.7	5.7	0.9	9.2	5.0	0.0
		Avg.	66.3	32.1	6.4	11.7	3.3	0.5	7.4	4.6	0.0
		SD	3.6	3.4	0.9	1.5	0.8	0.2	1.0	0.2	0.0
May	Central Utility Building	Min	60.4	34.2	5.7	9.3	4.7	0.3	4.7	3.9	0.0
		Max	72.6	41.2	7.2	10.1	5.3	0.8	5.2	7.1	0.0
		Avg.	67.2	36.5	6.1	9.8	4.9	0.5	4.9	5.1	0.0
		SD	3.3	1.8	0.4	0.2	0.1	0.1	0.1	1.0	0.0
	CGP	Min	64.3	27.4	6.8	8.7	3.7	0.4	4.3	8.7	0.0
		Max	72.9	46.6	11.4	12.2	5.7	0.8	6.7	13.7	0.0
		Avg.	69.3	34.9	8.1	10.1	4.8	0.5	5.3	11.3	0.0
		SD	2.0	4.3	0.8	0.8	0.5	0.1	0.5	1.4	0.0
	Security Barrack	Min	61.8	25.3	7.2	7.4	4.6	0.4	5.2	9.5	0.0
		Max	79.5	45.8	8.2	9.3	6.2	0.8	7.4	14.3	0.0
		Avg.	69.8	35.2	7.7	8.3	5.4	0.6	6.4	12.0	0.0
		SD	3.9	3.9	0.2	0.4	0.4	0.1	0.7	1.6	0.0
	Township	Min	54.1	29.5	4.9	10.2	2.5	0.2	6.2	4.3	0.0
		Max	75.6	36.8	10.2	15.9	4.1	0.8	9.7	5.0	0.0
		Avg.	66.4	32.7	7.0	12.4	3.4	0.5	8.1	4.7	0.0
		SD	4.7	2.1	1.1	1.4	0.4	0.2	0.9	0.2	0.0

Month	Location		PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	NO2 µg/m3	CO mg/m3	NH3 µg/m3	O3 µg/m3	BENZ µg/m3
Jun	Central Utility Building	Min	58.0	34.4	5.2	9.6	4.6	0.3	4.6	3.6	0.0
		Max	72.8	38.7	6.3	10.2	5.1	0.8	5.2	7.0	0.0
		Avg.	65.1	35.6	6.0	9.9	4.8	0.5	4.9	5.1	0.0
		SD	3.2	1.0	0.2	0.2	0.1	0.1	0.2	1.1	0.0
	CGP	Min	61.2	27.1	7.1	7.8	3.4	0.3	4.2	9.2	0.0
		Max	74.8	39.2	8.1	11.4	5.7	0.9	5.7	13.7	0.0
		Avg.	67.8	33.0	7.3	9.8	4.6	0.5	5.0	11.1	0.0
		SD	3.4	2.7	0.3	0.9	0.5	0.1	0.4	1.2	0.0
	Security Barrack	Min	61.5	27.5	7.1	4.1	4.2	0.3	5.0	9.9	0.0
		Max	73.0	41.8	7.8	10.8	6.1	0.8	8.4	15.3	0.0
		Avg.	68.1	34.3	7.5	6.7	5.0	0.5	6.4	12.6	0.0
		SD	3.6	3.8	0.1	1.6	0.4	0.1	0.8	1.5	0.0
	Township	Min	57.1	29.8	5.3	10.3	2.9	0.3	6.3	4.4	0.0
		Max	76.3	42.6	9.0	14.9	5.8	0.8	9.6	5.0	0.0
		Avg.	64.9	34.3	6.8	12.4	4.1	0.6	7.5	4.7	0.0
		SD	4.7	3.0	0.8	1.2	0.6	0.1	0.9	0.2	0.0
Jul	Central Utility Building	Min	59.5	34.4	4.0	9.2	4.6	0.3	4.6	6.0	0.0
		Max	73.7	52.6	6.2	10.3	5.2	0.8	5.2	6.9	0.0
		Avg.	65.0	35.7	5.8	9.8	4.8	0.5	4.9	6.5	0.0
		SD	4.2	3.2	0.5	0.2	0.2	0.1	0.2	0.2	0.0
	CGP	Min	56.8	28.8	6.8	8.3	3.8	0.3	4.5	9.5	0.0
		Max	85.5	43.4	7.5	13.2	6.2	0.9	8.5	14.1	0.0
		Avg.	67.3	33.6	7.2	10.3	4.9	0.6	6.2	11.3	0.0
		SD	5.4	3.4	0.2	1.3	0.6	0.1	1.1	1.2	0.0
	Security Barrack	Min	61.4	28.6	6.5	4.5	4.2	0.3	5.2	9.4	0.0
		Max	77.0	39.3	7.5	11.5	7.2	0.8	12.6	15.3	0.0
		Avg.	67.7	33.9	7.1	7.6	5.5	0.5	8.6	11.9	0.0
		SD	4.0	2.6	0.3	2.1	0.9	0.1	2.7	1.4	0.0
	Township	Min	51.9	27.2	3.5	9.4	2.5	0.3	5.8	4.2	0.0
		Max	82.9	39.4	9.2	16.7	6.2	0.8	10.7	5.2	0.0
		Avg.	64.7	31.8	6.5	12.2	3.7	0.5	8.0	4.7	0.0
		SD	7.1	2.9	1.3	1.8	0.9	0.1	1.2	0.2	0.0

Month	Location		PM10	PM2.5	SO2	NOx	NO2	CO	NH3	O3	BENZ
			µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	µg/m3	µg/m3
Aug	Central Utility Building	Min	58.4	32.5	5.5	9.7	4.6	0.4	4.7	6.0	0.0
		Max	78.9	39.4	6.1	10.3	5.4	0.9	5.2	6.9	0.0
		Avg.	64.6	35.1	5.8	9.9	4.9	0.6	5.0	6.5	0.0
		SD	4.0	1.4	0.1	0.2	0.2	0.1	0.1	0.2	0.0
	CGP	Min	53.4	20.6	6.7	7.8	3.2	0.4	4.1	6.4	0.0
		Max	72.9	40.0	7.5	18.5	5.4	0.8	9.7	10.5	0.0
		Avg.	65.0	28.6	7.1	11.3	4.6	0.6	5.3	8.2	0.0
		SD	4.8	4.3	0.2	2.7	0.4	0.1	1.0	1.2	0.0
	Security Barrack	Min	54.6	22.2	4.2	7.6	5.2	0.3	8.2	6.7	0.0
		Max	91.2	49.7	8.5	11.8	9.4	0.9	12.9	11.3	0.0
		Avg.	67.4	35.3	7.4	9.2	6.5	0.6	10.4	8.4	0.0
		SD	7.0	6.3	0.9	0.8	0.8	0.1	1.2	1.3	0.0
	Township	Min	54.3	28.6	3.1	9.4	2.6	0.3	6.4	4.4	0.0
		Max	76.0	48.2	9.1	14.5	4.3	0.8	10.9	5.3	0.0
		Avg.	63.2	33.7	5.5	11.5	3.4	0.5	7.8	4.8	0.0
		SD	5.3	3.8	1.7	1.4	0.4	0.1	1.1	0.2	0.0
Sept	Central Utility Building	Min	58.5	30.2	5.6	9.4	4.8	0.3	4.6	5.7	0.0
		Max	71.9	38.6	6.5	10.3	5.3	0.9	5.2	6.7	0.0
		Avg.	62.9	34.6	6.1	9.9	5.0	0.5	4.9	6.4	0.0
		SD	3.1	1.7	0.2	0.2	0.1	0.1	0.1	0.2	0.0
	CGP	Min	54.9	24.0	6.5	9.0	3.0	0.3	4.4	6.5	0.0
		Max	74.7	34.6	7.5	14.1	5.8	0.8	8.9	10.4	0.0
		Avg.	63.6	28.4	7.1	11.1	4.4	0.5	5.8	8.5	0.0
		SD	4.5	3.2	0.2	1.5	0.7	0.1	1.1	1.1	0.0
	Security Barrack	Min	55.6	27.6	5.2	7.9	4.2	0.3	8.6	5.2	0.0
		Max	79.1	42.5	7.0	9.2	6.9	0.9	12.8	10.9	0.0
		Avg.	64.6	34.8	6.3	8.5	6.0	0.6	10.8	8.0	0.0
		SD	5.6	3.5	0.4	0.3	0.7	0.1	0.8	1.6	0.0
	Township	Min	51.4	26.8	6.3	9.8	2.7	0.3	6.9	4.9	0.0
		Max	72.4	36.7	10.5	14.5	6.9	0.9	10.2	8.6	0.0
		Avg.	62.1	31.6	8.4	11.4	3.9	0.6	8.5	6.2	0.0
		SD	4.8	2.4	1.1	1.2	1.2	0.1	1.0	1.1	0.0


Lab (I/C)


HOD (EMD)

Ref. No.: EMD/LAB/2021-22/14

Date: 19.04.2021

FUGITIVE DUST MONITORING REPORT

(April 2021)

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
1	06.04.21	Power Plant ash silo	94
2	06.04.21	Process Boiler ash silo	90
3	06.04.21	HESS plant raw material area	85
4	06.04.21	HESS plant product storage area	89
5	06.04.21	LWA plant raw material area	83
6	06.04.21	LWA plant product storage area	87
7	07.04.21	CGP ash silo	78
8	07.04.21	Coal Washery outside office	90
9	07.04.21	Coal Washery near yard	91
10	07.04.21	Oxygen Plant outside office	93
11	08.04.21	DRI near furnace	87
12	08.04.21	DRI outside control room	89
13	08.04.21	LDP outside control room	93
14	08.04.21	LDP near kiln	86
15	08.04.21	LDP product handling area	97
16	09.04.21	Plate Mill outside office	76
17	09.04.21	Plate Mill near furnace	81
18	09.04.21	Plate Mill storage area	83
19	09.04.21	Bar Mill outside office	77
20	09.04.21	Bar Mill near furnace	81
21	09.04.21	Bar Mill storage area	84
22	10.04.21	SMS outside EAF control room	91
23	10.04.21	SMS outside LF control room	90
24	10.04.21	SMS outside water complex office	88
25	10.04.21	SMS near thickener	83
26	10.04.21	SMS near propane storage area	81
27	10.04.21	Near BOF converter	91
28	10.04.21	Outside BOF office	87
29	10.04.21	Outside Granshot control room	96
30	12.04.21	SSD outside office	79
31	12.04.21	SSD inside workshop	80
32	12.04.21	Coke Oven near coal blending bins	96
33	12.04.21	Coke Oven near coal crusher	92

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
34	12.04.21	Coke Oven near coal mixer	91
35	12.04.21	Coke Oven near coal tower	87
36	13.04.21	Coke Oven near Battery 1	85
37	13.04.21	Coke Oven near Battery 2	91
38	13.04.21	Coke Oven near Battery 3	93
39	13.04.21	Coke Oven near Battery 4	87
40	13.04.21	Coke Oven near quenching tower 1	88
41	13.04.21	Coke Oven near quenching tower 2	89
42	13.04.21	Coke Oven near coke cutting & screening house	87
43	13.04.21	Coke Oven byproduct area	90
44	14.04.21	Blast Furnace near stock house	87
45	14.04.21	Blast Furnace taphole 1 & 2 side	91
46	14.04.21	Blast Furnace taphole 3 & 4 side	93
47	14.04.21	Sinter Plant coke building	97
48	14.04.21	Sinter Plant flux building	89
49	14.04.21	Sinter Plant crusher building	85
50	15.04.21	Sinter Plant screening building	91
51	15.04.21	Sinter Plant proportionate building	92
52	15.04.21	Sinter Plant outside control room	90
53	16.04.21	RMHS package 1 yard	93
54	16.04.21	Junction House 3	91
55	16.04.21	Junction House 5	93
56	16.04.21	Junction House 8	85
57	17.04.21	Junction House 10	91
58	17.04.21	Junction House 12	92
59	17.04.21	RMHS package 6 yard	92
60	17.04.21	Junction House 17	87
61	17.04.21	Junction House 20	93
62	17.04.21	RMHS package 8 yard	95


 Lab (I/C)


 HOD (EMD)

Ref. No.: EMD/LAB/2021-22/31

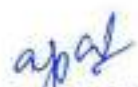
Date: 22.05.2021

FUGITIVE DUST MONITORING REPORT

(May 2021)

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
1	04.05.21	Power Plant ash silo	91
2	04.05.21	Process Boiler ash silo	93
3	04.05.21	HESS plant raw material area	88
4	04.05.21	HESS plant product storage area	81
5	04.05.21	LWA plant raw material area	83
6	04.05.21	LWA plant product storage area	84
7	05.05.21	CGP ash silo	81
8	05.05.21	Coal Washery outside office	91
9	05.05.21	Coal Washery near yard	97
10	06.05.21	Oxygen Plant outside office	84
11	06.05.21	DRI near furnace	79
12	06.05.21	DRI outside control room	83
13	07.05.21	LDP outside control room	90
14	07.05.21	LDP near kiln	83
15	07.05.21	LDP product handling area	92
16	08.05.21	Plate Mill outside office	72
17	08.05.21	Plate Mill near furnace	83
18	08.05.21	Plate Mill storage area	84
19	08.05.21	Bar Mill outside office	71
20	08.05.21	Bar Mill near furnace	83
21	08.05.21	Bar Mill storage area	89
22	10.05.21	SMS outside EAF control room	92
23	10.05.21	SMS outside LF control room	91
24	10.05.21	SMS outside water complex office	76
25	10.05.21	SMS near thickener	84
26	10.05.21	SMS near propane storage area	83
27	11.05.21	Near BOF converter	88
28	11.05.21	Outside BOF office	92
29	11.05.21	Outside Granshot control room	93
30	11.05.21	SSD outside office	76
31	11.05.21	SSD inside workshop	74
32	12.05.21	Coke Oven near coal blending bins	92
33	12.05.21	Coke Oven near coal crusher	97

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
34	12.05.21	Coke Oven near coal mixer	92
35	12.05.21	Coke Oven near coal tower	88
36	13.05.21	Coke Oven near Battery 1	81
37	13.05.21	Coke Oven near Battery 2	93
38	13.05.21	Coke Oven near Battery 3	89
39	13.05.21	Coke Oven near Battery 4	87
40	13.05.21	Coke Oven near quenching tower 1	93
41	13.05.21	Coke Oven near quenching tower 2	91
42	14.05.21	Coke Oven near coke cutting & screening house	94
43	14.05.21	Coke Oven byproduct area	87
44	14.05.21	Blast Furnace near stock house	96
45	15.05.21	Blast Furnace taphole 1 & 2 side	92
46	15.05.21	Blast Furnace taphole 3 & 4 side	94
47	15.05.21	Sinter Plant coke building	93
48	15.05.21	Sinter Plant flux building	86
49	17.05.21	Sinter Plant crusher building	89
50	17.05.21	Sinter Plant screening building	92
51	17.05.21	Sinter Plant proportionate building	93
52	17.05.21	Sinter Plant outside control room	84
53	18.05.21	RMHS package 1 yard	91
54	18.05.21	Junction House 3	96
55	18.05.21	Junction House 5	90
56	18.05.21	Junction House 8	93
57	18.05.21	Junction House 10	94
58	19.05.21	Junction House 12	93
59	19.05.21	RMHS package 6 yard	97
60	19.05.21	Junction House 17	94
61	19.05.21	Junction House 20	94
62	19.05.21	RMHS package 8 yard	91


Lab (I/C)


HOD (EMD)

Ref. No.: EMD/LAB/2021-22/48

Date: 21.06.2021

FUGITIVE DUST MONITORING REPORT

(June 2021)

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
1	07.06.21	Power Plant ash silo	94
2	07.06.21	Process Boiler ash silo	90
3	07.06.21	HESS plant raw material area	93
4	07.06.21	HESS plant product storage area	83
5	07.06.21	LWA plant raw material area	91
6	07.06.21	LWA plant product storage area	85
7	08.06.21	CGP ash silo	86
8	08.06.21	Coal Washery outside office	97
9	08.06.21	Coal Washery near yard	90
10	08.06.21	Oxygen Plant outside office	80
11	09.06.21	DRI near furnace	93
12	09.06.21	DRI outside control room	84
13	09.06.21	LDP outside control room	92
14	09.06.21	LDP near kiln	94
15	09.06.21	LDP product handling area	90
16	10.06.21	Plate Mill outside office	73
17	10.06.21	Plate Mill near furnace	86
18	10.06.21	Plate Mill storage area	86
19	10.06.21	Bar Mill outside office	74
20	10.06.21	Bar Mill near furnace	87
21	10.06.21	Bar Mill storage area	86
22	11.06.21	SMS outside EAF control room	94
23	11.06.21	SMS outside LF control room	93
24	11.06.21	SMS outside water complex office	79
25	11.06.21	SMS near thickener	82
26	11.06.21	SMS near propane storage area	89
27	12.06.21	Near BOF converter	85
28	12.06.21	Outside BOF office	91
29	12.06.21	Outside Granshot control room	90
30	12.06.21	SSD outside office	82
31	12.06.21	SSD inside workshop	79
32	14.06.21	Coke Oven near coal blending bins	90
33	14.06.21	Coke Oven near coal crusher	95

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
34	14.06.21	Coke Oven near coal mixer	94
35	14.06.21	Coke Oven near coal tower	84
36	14.06.21	Coke Oven near Battery 1	86
37	14.06.21	Coke Oven near Battery 2	89
38	14.06.21	Coke Oven near Battery 3	91
39	14.06.21	Coke Oven near Battery 4	83
40	14.06.21	Coke Oven near quenching tower 1	90
41	14.06.21	Coke Oven near quenching tower 2	92
42	14.06.21	Coke Oven near coke cutting & screening house	95
43	14.06.21	Coke Oven byproduct area	84
44	15.06.21	Blast Furnace near stock house	91
45	15.06.21	Blast Furnace taphole 1 & 2 side	88
46	15.06.21	Blast Furnace taphole 3 & 4 side	93
47	15.06.21	Sinter Plant coke building	97
48	15.06.21	Sinter Plant flux building	84
49	15.06.21	Sinter Plant crusher building	92
50	15.06.21	Sinter Plant screening building	93
51	15.06.21	Sinter Plant proportionate building	95
52	15.06.21	Sinter Plant outside control room	82
53	16.06.21	RMHS package 1 yard	92
54	16.06.21	Junction House 3	92
55	16.06.21	Junction House 5	96
56	16.06.21	Junction House 8	89
57	16.06.21	Junction House 10	92
58	16.08.21	Junction House 12	88
59	17.06.21	RMHS package 6 yard	87
60	17.06.21	Junction House 17	86
61	17.06.21	Junction House 20	84
62	17.06.21	RMHS package 8 yard	89


Lab (I/C)
HOD (EMD)

Ref. No.: EMD/LAB/2021-22/65

Date: 20.07.2021

FUGITIVE DUST MONITORING REPORT

(July 2021)

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
1	06.07.21	Power Plant ash silo	91
2	06.07.21	Process Boiler ash silo	88
3	06.07.21	HESS plant raw material area	92
4	06.07.21	HESS plant product storage area	86
5	06.07.21	LWA plant raw material area	84
6	06.07.21	LWA plant product storage area	87
7	07.07.21	CGP ash silo	88
8	07.07.21	Coal Washery outside office	91
9	07.07.21	Coal Washery near yard	87
10	07.07.21	Oxygen Plant outside office	82
11	08.07.21	DRI near furnace	89
12	08.07.21	DRI outside control room	86
13	08.07.21	LDP outside control room	93
14	08.07.21	LDP near kiln	95
15	08.07.21	LDP product handling area	94
16	10.07.21	Plate Mill outside office	81
17	10.07.21	Plate Mill near furnace	86
18	10.07.21	Plate Mill storage area	82
19	10.07.21	Bar Mill outside office	79
20	10.07.21	Bar Mill near furnace	87
21	10.07.21	Bar Mill storage area	86
22	12.07.21	SMS outside EAF control room	91
23	12.07.21	SMS outside LF control room	94
24	12.07.21	SMS outside water complex office	84
25	12.07.21	SMS near thickener	86
26	12.07.21	SMS near propane storage area	85
27	12.07.21	Near BOF converter	89
28	12.07.21	Outside BOF office	93
29	12.07.21	Outside Granshot control room	92
30	13.07.21	SSD outside office	73
31	13.07.21	SSD inside workshop	74
32	13.07.21	Coke Oven near coal blending bins	86
33	13.07.21	Coke Oven near coal crusher	84

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
34	13.07.21	Coke Oven near coal mixer	91
35	13.07.21	Coke Oven near coal tower	92
36	13.07.21	Coke Oven near Battery 1	88
37	13.07.21	Coke Oven near Battery 2	91
38	13.07.21	Coke Oven near Battery 3	90
39	13.07.21	Coke Oven near Battery 4	87
40	14.07.21	Coke Oven near quenching tower 1	86
41	14.07.21	Coke Oven near quenching tower 2	83
42	14.07.21	Coke Oven near coke cutting & screening house	91
43	14.07.21	Coke Oven byproduct area	87
44	15.07.21	Blast Furnace near stock house	89
45	15.07.21	Blast Furnace taphole 1 & 2 side	85
46	15.07.21	Blast Furnace taphole 3 & 4 side	84
47	16.07.21	Sinter Plant coke building	94
48	16.07.21	Sinter Plant flux building	86
49	16.07.21	Sinter Plant crusher building	90
50	16.07.21	Sinter Plant screening building	82
51	16.07.21	Sinter Plant proportionate building	94
52	16.07.21	Sinter Plant outside control room	84
53	17.07.21	RMHS package 1 yard	87
54	17.07.21	Junction House 3	83
55	17.07.21	Junction House 5	91
56	17.07.21	Junction House 8	86
57	17.07.21	Junction House 10	94
58	17.07.21	Junction House 12	81
59	19.07.21	RMHS package 6 yard	89
60	19.07.21	Junction House 17	85
61	19.07.21	Junction House 20	90
62	19.07.21	RMHS package 8 yard	85


Lab (I/C)

HOD (EMD)

Ref. No.: EMD/LAB/2021-22/82

Date: 25.08.2021

FUGITIVE DUST MONITORING REPORT

(August 2021)

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
1	03.08.21	Power Plant ash silo	93
2	03.08.21	Process Boiler ash silo	81
3	03.08.21	HESS plant raw material area	90
4	03.08.21	HESS plant product storage area	79
5	03.08.21	LWA plant raw material area	82
6	03.08.21	LWA plant product storage area	86
7	04.08.21	CGP ash silo	73
8	04.08.21	Coal Washery outside office	92
9	04.08.21	Coal Washery near yard	89
10	04.08.21	Oxygen Plant outside office	79
11	05.08.21	DRI near furnace	73
12	05.08.21	DRI outside control room	78
13	05.08.21	LDP outside control room	92
14	05.08.21	LDP near kiln	90
15	05.08.21	LDP product handling area	91
16	06.08.21	Plate Mill outside office	86
17	06.08.21	Plate Mill near furnace	88
18	06.08.21	Plate Mill storage area	78
19	06.08.21	Bar Mill outside office	82
20	06.08.21	Bar Mill near furnace	87
21	06.08.21	Bar Mill storage area	81
22	07.08.21	SMS outside EAF control room	93
23	07.08.21	SMS outside LF control room	87
24	07.08.21	SMS outside water complex office	79
25	07.08.21	SMS near thickener	81
26	07.08.21	SMS near propane storage area	82
27	10.08.21	Near BOF converter	82
28	10.08.21	Outside BOF office	95
29	10.08.21	Outside Granshot control room	90
30	10.08.21	SSD outside office	76
31	10.08.21	SSD inside workshop	83
32	11.08.21	Coke Oven near coal blending bins	87
33	11.08.21	Coke Oven near coal crusher	82

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
34	11.08.21	Coke Oven near coal mixer	92
35	11.08.21	Coke Oven near coal tower	87
36	14.08.21	Coke Oven near Battery 1	83
37	14.08.21	Coke Oven near Battery 2	86
38	14.08.21	Coke Oven near Battery 3	92
39	14.08.21	Coke Oven near Battery 4	86
40	14.08.21	Coke Oven near quenching tower 1	83
41	14.08.21	Coke Oven near quenching tower 2	85
42	14.08.21	Coke Oven near coke cutting & screening house	93
43	14.08.21	Coke Oven byproduct area	91
44	16.08.21	Blast Furnace near stock house	85
45	16.08.21	Blast Furnace taphole 1 & 2 side	91
46	16.08.21	Blast Furnace taphole 3 & 4 side	90
47	20.08.21	Sinter Plant coke building	85
48	20.08.21	Sinter Plant flux building	82
49	20.08.21	Sinter Plant crusher building	91
50	20.08.21	Sinter Plant screening building	80
51	20.08.21	Sinter Plant proportionate building	91
52	20.08.21	Sinter Plant outside control room	80
53	21.08.21	RMHS package 1 yard	86
54	21.08.21	Junction House 3	89
55	21.08.21	Junction House 5	90
56	21.08.21	Junction House 8	83
57	21.08.21	Junction House 10	91
58	23.08.21	Junction House 12	83
59	23.08.21	RMHS package 6 yard	91
60	23.08.21	Junction House 17	81
61	23.08.21	Junction House 20	87
62	23.08.21	RMHS package 8 yard	86


Lab (I/C)


HOD (EMD)

Ref. No.: EMD/LAB/2021-22/99

Date: 23.09.2021

FUGITIVE DUST MONITORING REPORT

(September 2021)

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
1	06.09.21	Power Plant ash silo	97
2	06.09.21	Process Boiler ash silo	86
3	06.09.21	HESS plant raw material area	88
4	06.09.21	HESS plant product storage area	76
5	06.09.21	LWA plant raw material area	81
6	06.09.21	LWA plant product storage area	82
7	07.09.21	CGP ash silo	74
8	07.09.21	Coal Washery outside office	93
9	07.09.21	Coal Washery near yard	82
10	07.09.21	Oxygen Plant outside office	89
11	08.09.21	DRI near furnace	79
12	08.09.21	DRI outside control room	91
13	08.09.21	LDP outside control room	92
14	08.09.21	LDP near kiln	96
15	08.09.21	LDP product handling area	93
16	09.09.21	Plate Mill outside office	81
17	09.09.21	Plate Mill near furnace	82
18	09.09.21	Plate Mill storage area	73
19	09.09.21	Bar Mill outside office	79
20	09.09.21	Bar Mill near furnace	82
21	09.09.21	Bar Mill storage area	82
22	10.09.21	SMS outside EAF control room	86
23	10.09.21	SMS outside LF control room	88
24	10.09.21	SMS outside water complex office	71
25	10.09.21	SMS near thickener	78
26	10.09.21	SMS near propane storage area	81
27	11.09.21	Near BOF converter	81
28	11.09.21	Outside BOF office	92
29	11.09.21	Outside Granshot control room	88
30	11.09.21	SSD outside office	74
31	11.09.21	SSD inside workshop	81
32	13.09.21	Coke Oven near coal blending bins	84
33	13.09.21	Coke Oven near coal crusher	83

Sl. No.	Date	Location	PM ₁₀ (µg/m ³)
34	13.09.21	Coke Oven near coal mixer	93
35	13.09.21	Coke Oven near coal tower	91
36	14.09.21	Coke Oven near Battery 1	87
37	14.09.21	Coke Oven near Battery 2	92
38	14.09.21	Coke Oven near Battery 3	95
39	14.09.21	Coke Oven near Battery 4	90
40	15.09.21	Coke Oven near quenching tower 1	87
41	15.09.21	Coke Oven near quenching tower 2	91
42	15.09.21	Coke Oven near coke cutting & screening house	92
43	15.09.21	Coke Oven byproduct area	89
44	17.09.21	Blast Furnace near stock house	91
45	17.09.21	Blast Furnace taphole 1 & 2 side	93
46	17.09.21	Blast Furnace taphole 3 & 4 side	92
47	18.09.21	Sinter Plant coke building	81
48	18.09.21	Sinter Plant flux building	83
49	18.09.21	Sinter Plant crusher building	94
50	18.09.21	Sinter Plant screening building	96
51	18.09.21	Sinter Plant proportionate building	93
52	18.09.21	Sinter Plant outside control room	89
53	20.09.21	RMHS package 1 yard	92
54	20.09.21	Junction House 3	87
55	20.09.21	Junction House 5	88
56	20.09.21	Junction House 8	91
57	20.09.21	Junction House 10	93
58	20.09.21	Junction House 12	87
59	21.09.21	RMHS package 6 yard	93
60	21.09.21	Junction House 17	83
61	21.09.21	Junction House 20	89
62	21.09.21	RMHS package 8 yard	93

apal
Lab (I/C)

dkr
HOD (EMD)

Monthly ash utilization & disposal data of Power Plant					
Month	Bed ash (MT, dry basis)	Fly ash (MT, dry basis)	Total Ash generation (MT, dry basis)	Ash utilized (MT, dry basis)	Ash disposed in ash pond (MT, dry basis)
April'21	20716	82863	103579	25540	78039
May'21	21737	86946	108683	24757	83926
June'21	18679	74718	93397	37026	56371
July'21	16563	66250	82813	31331	51482
August'21	20150	80599	100749	31469	69280
Sept'21	16311	65246	81557	27626	53931

Monthly ash utilization & disposal data of Process Boiler					
Month	Bed ash (MT, dry basis)	Fly ash (MT, dry basis)	Total Ash generation (MT, dry basis)	Ash utilized (MT, dry basis)	Ash disposed in ash pond (MT, dry basis)
April'21	5945	23778	29723	4976	24747
May'21	5737	22948	28685	6935	21750
June'21	5641	22564	28205	6751	21454
July'21	5709	22834	28543	6328	22215
August'21	5344	21376	26720	6840	19880
Sept'21	3730	14922	18652	5428	13224


AVP (EMD)

Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030040 Sample Reg. Date :03-08-2021 Report Date :13-08-2021 Report No. :ICE-2108130330 (1) NABL ULR No. :TC592621000008574F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per IS: BIS Specification IS:10500-2012	With Amendment No.(s): 01 to 03
---	--

PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample#	Ash Pond Monitoring Bore Well Water
b)	Grade / Variety / Type / Class / Size etc.	NA
c)	Brand Name	NA
d)	Declared Values,if any	NA
e)	Code No.	
f)	Batch Number#	NA
g)	D.O.M#	NA
h)	Date of Expiry#	NA
i)	Sample Quantity#	7 Ltr
j)	Batch Size/Location#	NA
k)	Mode of Packing	Packed in bottles & in cans
l)	Date of Receipt	03-08-2021
m)	Date of Start	03-08-2021
n)	Date of Completion	13-08-2021
o)	Seal (Intact/Not Intact/Unsealed)	NA
p)	IO'S Signature (Signed/Unsigned)	Unsigned
q)	Any Other Information	Sample collected by lab rep. Mr. Jit on 29.07.2021, Sample from Ash Pond Monitoring Bore Well Water
r)	Test Request Submitted By	Jindal Steel & Power Limited-Angul (Odisha)
s)	Manufactured By#	NA
t)	Supplied By#	NA

PART B : SUPPLIMENTARY INFORMATIONS



13-08-2021
Gaurav Khandelwal
[Authorized Signatory]



Saurabh Sharma
13-08-2021
Reviewer



13-08-2021
PremKumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.

(ISO 9001:2015 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)

(A Government Approved Test House)

86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)

Phone : (O) 0172-2561543, 2565825

Visit us : www.itclabs.com Email : customersupport@itclabs.com

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Test Report

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a. Reference to sampling procedure, whenever applicable	: N/A
b. Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any	: N/A
c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any	: N/A

Description					
Description	Clear colorless liquid				
S.No.	Parameters	Method	Acceptable Limit	Permissible Limit	Result
	Discipline : Chemical				
	Group : Water				
1.	Organoleptic & Physical Parameter				
a.	Colour (Hazen)	IS:3025(Part4):1983(RA:2017)amd. no1	5 Max.	15 Max.	<2
b.	Taste	IS:3025(Part 8):1984(RA:2017)	Agreeable	-	Agreeable
c.	Odour	IS:3025(Part 5):1983(RA:2017)	Agreeable	-	Agreeable
d.	pH Value	IS:3025 (Part - 11):1983(RA:2017)	6.5-8.5	No relaxation	7.40
e.	Turbidity(NTU)	IS:3025(Part 10):1984(RA:2017)	1 Max.	5 Max.	<0.5
f.	Total Dissolved Solids,(mg/l)	IS:3025(Part 16):1984(RA:2006)	500 Max.	2000 Max.	275
2.	Parameters Concerning Undesirable Substances in excess amount				
a.	Aluminium as Al, (mg/l)	IS:3025(Part 55):RA2014	0.03 Max.	0.2 Max.	BLQ(LOQ:0.02)
b.	Ammonia (as total ammonia-N) (mg/l)	IS:3025(Part 34):1988(RA:2014)	0.5 Max.	No Relaxation	BLQ(LOQ:0.1)
c.	Anionic detergent(as MBAS),(mg/l)	IS:13428:2005(RA:2009)-Annex K	0.2 Max.	1.0 Max.	BLQ(LOQ:0.05)



13-08-2021
Gaurav Khandelwal
[Authorized Signatory]



Saurabh Sharma
13-08-2021
Reviewer



13-08-2021
Prem Kumar
[Authorized Signatory]

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	Report No. :ICE-2108130330 (1)
	NABL ULR No. :TC592621000008574F
	Customer Ref. No.: WO
	Letter Dated :03.04.2021

d.	Barium (as Ba) (mg/l)	IS:13428:2005(RA:2014)Annex. F/IS:3025(P-65)	0.7 Max.	No relaxation	BLQ(LOQ:0.3)
e.	Boron (as B) (mg/l)	Apha 23rd Edn.2017-3120 B/IS:3025(Part 57):2004(RA:2017)	0.5 Max.	2.4 Max.	BLQ(LOQ:0.5)
f.	Calcium(as Ca), (mg/l)	IS:3025(Part 40):1991(RA:2014) amd no 1	75 Max.	200 Max.	42
g.	Chloramines (as Cl ₂), (mg/l)	IS:3025(Part 26):1986 amd no 1(RA 2014)	4.0 Max.	No relaxation	BLQ(LOQ:0.02)
h.	Chloride(as Cl) (mg/l)	IS:3025(Part 32):1988(RA:2014)	250 Max.	1000 Max.	12
i.	Copper (as Cu) (mg/l)	IS:3025(P-65)	0.05 Max.	1.5 Max.	0.009
j.	Fluoride as F (mg/l)	IS:3025(Part 60):2008 amd. no 1(RA:2013)	1.0 Max.	1.5 Max.	BLQ(LOQ:0.1)
k.	Phenolic compounds (as C ₆ H ₅ OH), (mg/l)	IS:3025(P-43)	0.001 Max.	0.002 Max.	BLQ(LOQ:0.001)
l.	Free Residual Chlorine, (mg/l)	IS:3025(P-26)	0.2 Min.	1.0 Max.	Not Applicable
m.	Iron (as Fe) (mg/l)	IS:3025(Part 53):2003(RA:2014)	1.0 Max.	No relaxation	BLQ(LOQ:0.01)
n.	Magnesium as Mg (mg/l)	IS:3025(Part 46):1994 amd. no. 2(RA:2014)	30 Max.	100 Max.	18
o.	Manganese as Mn, (mg/l)	Apha 23rd Edn.2017-3125 B/IS:3025(Part 59):2004(RA:2017)	0.1 Max.	0.3 Max.	BLQ(LOQ:0.1)
p.	Mineral Oil, (mg/l)	Clause 6 of IS:3025(Part39)	0.5 Max.	No Relaxation	BLQ(LOQ: 0.01)
q.	Nitrate as NO ₃ (mg/l)	IS:3025(Part 34):1988(RA:2014)	45 Max.	No Relaxation	BLQ(LOQ:1.0)
r.	Selenium (as Se) (mg/l)	IS:3025(P-65)	0.01 Max.	No Relaxation	BLQ(LOQ:0.002)
s.	Silver (as Ag) (mg/l)	IS:3025(P-65)	0.1 Max.	No Relaxation	BLQ(LOQ:0.002)
t.	Sulphate(as SO ₄) (mg/l)	IS:3025(Part 24):1986(RA:2014)	200 Max.	400 Max.	29



13-08-2021
Gaurav Khandelwal
[Authorized Signatory]



Saurabh Sharma
13-08-2021
Reviewer



13-08-2021
PremKumar
[Authorized Signatory]

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	Report No. :ICE-2108130330 (1)
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	Customer Ref. No.: WO
	Letter Dated :03.04.2021

u.	Sulphide as H ₂ S, (mg/l)	IS:3025(Part 29)	0.05 Max.	No Relaxation	BLQ(LOQ:0.05)
v.	Total Alkalinity(as CaCO ₃)(mg/l)	IS:3025(Part 23)	200 Max.	600 Max.	263
w.	Total Hardness(as CaCO ₃), (mg/l)	IS 3025 (Part 21)	200 Max.	600 Max.	179.2
x.	Zinc(as Zn)(mg/l)	IS:3025(P-65)	5 Max.	15 Max.	0.996
3.	Parameters Concerning Toxic Substances				
a.	Cadmium(as Cd)(mg/l)	IS:3025(P-65)	0.003 Max.	No Relaxation	BLQ(LOQ:0.002)
b.	Cyanide(asCN)(mg/l)	IS:3025(Part 27)	0.05 Max.	No Relaxation	BLQ(LOQ:0.01)
c.	Lead(as Pb)(mg/l)	IS:3025(P-65)	0.01 Max.	No Relaxation	0.007
d.	Mercury(as Hg)(mg/l)	IS:3025(P-65)	0.001 Max.	No Relaxation	BLQ(LOQ:0.001)
e.	Molybdenum(as Mo)(mg/l)	IS:3025(P-65)	0.07 Max.	No Relaxation	BLQ(LOQ:0.002)
f.	Nickel(as Ni) (mg/l)	IS:3025(P-65)	0.02 Max.	No Relaxation	BLQ(LOQ:0.002)
g.	Total Arsenic(as As)(mg/l)	IS:3025(P-65)	0.01 Max.	No relaxation	BLQ(LOQ:0.002)
h.	Total Chromium(as Cr)(mg/l)	IS:3025(P-65)	0.05 Max.	No Relaxation	BLQ(LOQ:0.002)
	Discipline : Biological				
	Group : Water				
1.	Microbiological Tests				
a.	E.Coli/100 ml	IS:15185(Membrane Filtration Method)	Shall not be detectable in any 100 ml sample	-	Absent
b.	Total Coliform Count/100 ml	IS:15185(Membrane Filtration Method)	Shall not be detectable in any 100 ml sample	-	Absent

*# represents categories/test parameters not covered under NABL # represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Sampling Procedure - SOP/ITC/EW/030,

REMARKS :The above referred sample of Ash Pond Monitoring Bore Well Water conforms to BIS Specification IS:10500-2012 with upto date amdts with respect to the above tests.



13-08-2021
Gaurav Khandelwal
[Authorized Signatory]



Saurabh Sharma
13-08-2021
Reviewer



13-08-2021
Prem Kumar
[Authorized Signatory]

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	Letter Dated :03.04.2021

*****End Of Report*****



13-08-2021
Gaurav Khandelwal
[Authorized Signatory]



Saurabh Sharma
13-08-2021
Reviewer



13-08-2021
PremKumar
[Authorized Signatory]

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Annexure 7

Details of Health Check up from Apr'21 to Sept'21

Sl. No.		Apr'21	May'21	Jun'21	Jul'21	Aug'21	Sept'21	Total
1	Pre-employment Health Check up of Employees	3	9	35	53	64	92	256
2	Periodical Health Check up of Employees	87	0	0	84	233	84	488
3	Pre-employment Health Check up of Contractor Workers	1468	1299	2745	3432	4471	3128	16543
4	Periodical Health Check up of Contractor Workers	512	343	727	979	1050	504	4115
Total		2070	1651	3507	4548	5818	3808	21402

No occupational diseases have been found till date.


19.10.2021

(Dr.K.P.Behera)
CMO, HOD-Medical
JSPL, Angul

IMPLEMENTATION OF CHARTER ON CORPORATE RESPONSIBILITY IN INTEGRATED STEEL PLANT

Unit	Recommendation	Compliance
1. Coke Oven Plants	a) To meet the parameters PLD (% leaking colors), PLL (% leaking lids), PLO (% leaking off take), of the notified standards under EPA within three years by December 2005). Industry will submit time bound action plan and PER Chart along with the Bank Guarantee for the implementation or the time. b) To rebuild at least 40% of the coke oven batteries in next 10 years (by December 2012.).	The coke oven has been designed and commissioned to meet the parameters PLD, PLL, PLO. Not applicable.
2. Steel Melting Shop	Fugitive emissions - To reduce 30% by March 2004 and 100% by March 2008 (including installation of secondary dedusting facilities).	The fugitive emission in the steel melting shop has been controlled by installing dust extraction system and bag filters.
3. Blast Furnace	Direct inject of reducing agents by June 2013.	Direct injection of reducing agents such as coal has been adopted to reduce dependency on coke.
4. Solid Waste /Hazardous Waste Management	Utilization of Steel/ Melting shop (SMS)/ Blast Furnace (BF) Slag as per the following schedule: * By 2004 - 70% * By 2006 – 80% and * By 2007 – 100 %.	Blast furnace slag is being used for cement making and SMS slag is being used for road making / land filling etc.
	a) Charge of tar sludge/ ETP sludge to Coke Oven by June 2003. b) Inventorization of the Hazardous waste as per Hazardous Waste (M& H), Rules, 1989 as amended in 2000 and implementation of the Rules by Dec. 2003. (tar sludge, acid sludge, waste Lubricating oil and type fuel falls in the category of Hazardous waste).	ETP sludge is being disposed to common hazardous waste disposal site developed by M/s Ramky at Jajpur. Tar sludge will be charged in the Coke oven. Inventorization of the Hazardous waste has been done as per Hazardous Waste Rule 2016.
5. Water Conservation/ Water Pollution	a) To reduce specific water consumption to 5 m3/t for long products and 8 m3/t for flat products by December 2005.	The specific water consumption for long products is being maintained <5 m3/t and <8 m3/t for flat

	b) To operate the Co-BP effluent treatment plant efficiently to achieve the notified effluent discharge standards. – by June, 2003.	products. Coke oven byproduct plant effluent is being treated to meet the standard and treated waste water is being reused
6.	Installation of Continuous stacks monitoring system & its calibration in major stacks and setting up of the online ambient air quality monitoring stations by June 2005.	Continuous stack monitoring system has been installed in all major stacks and 4 no. of online ambient air monitoring station has been set up.
7.	To operate the existing pollution control equipment efficiently and to keep proper record of run hours, failure time and efficiency with immediate effect. Compliance report in this regard will be submitted to CPCB/SPCB every three months.	Log book is being maintained for every pollution control equipment to record run time, failure time and efficiency.
8.	To implement the recommendations of Life Cycle Assessment (LCA) study sponsored by MoEF by December 2003.	JSPL will implement any such recommendation of LCA after commissioning of all units.
9.	The industry will initiate the steps to adopt the following clean technologies measures to improve the performance of industry towards production, energy, land environment. - Energy recovery of top Blast Furnace (BF) gas. - Use of Tar- free runner linings. - De-dusting of Cast house at tap holes, runners, skimmers ladle and charging points. - Suppression of fugitive emissions using nitrogen gas or other inert gas. - To study the possibility of slag and fly ash transportation back to the abandoned mines, to the abandoned mines, to fill up the cavities through empty railway wagons while they return back to the mines and its implementation. - Processing of the waste containing flux & ferrous wastes through waste recycling plant.	All these conditions has been complied by adopting: - Energy recovery of top Blast Furnace (BF) gas. - Use of Tar- free runner linings. - De-dusting of Cast house. - Dust extraction system has been provided to suppress fugitive emission - No abandoned mines available for backfilling. - Waste containing flux & ferrous is being recycled through Sinter Plant.

		- To implement rainwater harvesting - Reduction Green House Gases by: * Reduction in power consumption * Use of by –products gases for power generation * Promotion of Energy Optimization technology including energy/ audit. - To set targets for Resource Conservation such as Raw material, energy and water consumption to match International Standards. - Up- gradation in the monitoring and analysis facilities for air and water pollution. Also to impart elaborate training to the manpower so that realistic data is obtained in the environmental monitoring laboratories. - To Improve overall house keeping.	- 9 no. of rainwater harvesting structures have been constructed. - Reduction Green House Gases by: * Reduction in power consumption * Use of by –products gases for power generation * Promotion of Energy Optimization technology including energy/ audit. - JSPL has designed the plant for optimum utilization of resources and will further work towards Resource Conservation such as Raw material, energy and water consumption to match International Standards. - Environmental monitoring laboratory has been set up. - We have already adopted good housekeeping practices by implementing 5S in work place. For road cleaning we have engaged mechanical road cleaning machine.
10.Sponge iron plant		Inventorisation of sponge iron plants to be completed by SPCBs/CPCE by June 2003 and units will be asked to install proper air pollution control equipment by December 2003 to control primary and secondary emissions. As per rebuilding schedule submitted to CPCB/MoEF.	Not applicable.

IMPLEMENTATION OF CHARTER ON CORPORATE RESPONSIBILITY IN THERMAL POWER PLANT

Sl. No.	Recommendation	Compliance
1	Implementation of Environmental Standards (emission & effluent) in non-compliant* Power Plants (31 & 27) - Submission of action plan : June 30, 2003 - Placement of order for Pollution of control equipment : September, 2003 - Installation & commission : December 31, 2005.	Not applicable
2	For existing thermal power plants, a feasibility study will be carried out by Central Electricity Authority (CEA) to examine possibility to reduce the particulate matter emissions to 100 mg/Nm ³ . The studies shall also suggest the road map to meet 100 mg/Nm ³ . The studies shall also suggest the road map to meet 100 mg/Nm ³ wherever found feasible. CEA shall submit the report by March 2004.	CFBC boiler is using in power plant to use middling and reject coals from coal washery. ESP is design to achieve particulate matter emission below 50 mg/Nm ³ .
3	New / expansion power projects to be accorded environmental clearance on or after 14.1.2003 shall meet the limit of 100 mg/Nm ³ for particulate matter.	Emission level of 50 mg/Nm ³ has been achieved.
4	Development of SO ₂ & NO _x emission standards for coal based plants by December 2003. - New/ expansion power projects shall meet the limit of SO ₂ & NO _x w.e.f. 1.1.2005. - Existing power plants shall meet the limit of SO ₂ & NO _x w.e.f. 1.1.2006.	JSPL has installed lime dosing system to reduce SO ₂ emission below 600 mg/Nm ³ . Low NO _x burner has been provided to reduce NO _x emission below 300 mg/Nm ³ .
5	Install/activate opacity meters/ continuous monitoring system in all the units by December 31, 2004 with proper calibration system.	Continuous monitoring system has been installed in the stacks of the power plant.
6	Development of guidelines/ standards for mercury and other toxic heavy metals emissions by December 2003.	Order has been placed for procurement of online Mercury analyzer and will be installed by Dec'21. At present JSPL check Mercury emission from Power Plant monthly basis through NABL & MoEF&CC approved laboratory.
7	Review of stack height requirement and guidelines for power plants based on micro meteorological data by June 2003.	Not applicable
8	Implementation of use of beneficiated coal as per GOI Notification: Power plants will sign fuel supply agreement (FSA) to meet the requirement as per the matrix prepared by CEA for compliance of the notification as short term measure. Options/mechanism for setting up of coal washeries as a long term measure	Not applicable

	* Coal India will up its own washery * State Electricity Board to set up its own washery * Coal India to ask private entrepreneurs to set up washeries for CIL and taking washing charges * SEBs to select a private entrepreneur to set up a washery near pit- head installation of coal beneficiation plant	
9	Power plants will indicate their requirement of abandoned coal mines for ash disposal & Coal India/ MOC shall provide the list of abandoned mines by June 2003 to CEA.	JSPL has been intimated the Coal India Limited for its requirement for abandoned mines.
10	Power plants will provide dry ash to the users outside the premises or uninterrupted access to the users within six months.	JSPL provides dry ash to the users outside the premises or uninterrupted access to the users.
11	Power Plants should provide dry fly ash free of cost to the users.	JSPL provide dry fly ash free of cost to the users.
12	State P.W.Ds/ construction & development agencies shall also adhere to the specifications/Schedules of CPWD for ash based products utilization MoEF will take up the matter with State Governments.	Not applicable
13 (i)	New plants to be accorded environmental clearance on or after 01.04.2003 shall adopt dry fly ash extraction or dry disposal system or Medium (35-40%) ash concentration slurry disposal system or Lean phase with hundred percent ash water re-circulation system depending upon site specific environmental situation.	HCSD system has been adopted for ash disposal.
(ii)	Existing plants shall adopt any of the systems mentioned in 13 (i) by December 2004.	Not applicable
14	Fly ash Mission shall prepare guidelines/manuals for fly ash utilization by March 2004.	Not applicable
15	New plants shall promote adoption of clean coal and clean power generation technologies.	CFBC technology has been adopted.

Test Report

Document QF : 2501
Page 1 of 3

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030037 Sample Reg. Date :03-08-2021 Report Date :13-08-2021 Report No. :ICE-2108130337 NABL ULR No. :TC592621000008586F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per IS: EPA Act 1986/PCLS/2010	With Amendment No.(s):
--	-------------------------------

PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample#	ETP Outlet Water (Power Plant)
b)	Grade / Variety / Type / Class / Size etc.	NA
c)	Brand Name	NA
d)	Declared Values,if any	NA
e)	Code No.	
f)	Batch Number#	NA
g)	D.O.M#	NA
h)	Date of Expiry#	NA
i)	Sample Quantity#	2 Ltr
j)	Batch Size/Location#	NA
k)	Mode of Packing	Packed in bottles
l)	Date of Receipt	03-08-2021
m)	Date of Start	03-08-2021
n)	Date of Completion	13-08-2021
o)	Seal (Intact/Not Intact/Unsealed)	NA
p)	IO'S Signature (Signed/Unsigned)	Unsigned
q)	Any Other Information	Sample collected by lab rep. on 28.07.2021
r)	Test Request Submitted By	Jindal Steel & Power Limited-Angul (Odisha)
s)	Manufactured By#	NA
t)	Supplied By#	NA

PART B : SUPPLIMENTARY INFORMATIONS


Saurabh Sharma
13-08-2021
Reviewer


13-08-2021
PremKumar
[Authorized Signatory]

Disclaimer :

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- The results relate to the item tested.

Test Report

Document QF : 2501

Page 2 of 3

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030037 Sample Reg. Date :03-08-2021 Report Date :13-08-2021 Report No. :ICE-2108130337 NABL ULR No. :TC592621000008586F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a. Reference to sampling procedure, whenever applicable	: N/A
b. Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any	: N/A
c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any	: N/A

Description				
Description		ETP Outlet Water (Power Plant)		
S.No.	Parameters	Method	Specification	Result
Discipline : Chemical				
Group : Pollution & Environment				
1. General Parameters				
a.	pH Value	IS:3025 (Part - 11):1983(RA:2017)	5.5-9	7.67
b.	Total Suspended Solids,(mg/l)	IS:3025(Part 17)	Max. 100	5
c.	Total Dissolved Solids (mg/l)	IS:3025(Part 16):1984(RA.2006)	Max. 2100	76
d.	Chemical Oxygen Demand(mg/l)	APHA-23rd Edition	Max. 250	4
e.	Bio-chemical Oxygen Demand, mg/l (3 days at 27°C)	IS:3025(P-44)	Max. 30	BLQ(LOQ:1.0)
f.	Oil & Grease(mg/l)	IS:3025(P-39)	Max. 10	<0.1
g.	Ammonia as NH ₃ (mg/l)	APHA-23rd Edition	Max. 50	2.4
h.	Total Chromium as Cr (mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
i.	Iron(as Fe)(mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sampling Procedure - SOP/ITC/EW/030,

REMARKS :N/A


Saurabh Sharma
13-08-2021
Reviewer


13-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 3 of 3

Issued To

Jindal Steel & Power Limited
SH-63, Chendipada Road, Jindal Nagar, Angul
Angul

Sample Reg. No. :E01-2108030037
Sample Reg. Date :03-08-2021
Report Date :13-08-2021
Report No. :ICE-2108130337
NABL ULR No. :TC592621000008586F
Customer Ref. No.:WO
Letter Dated :03.04.2021

*****End Of Report*****



Saurabh Sharma
13-08-2021
Reviewer



13-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 1 of 3

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060102 Sample Reg. Date :06-09-2021 Report Date :13-09-2021 Report No. :ICE-2109130172 NABL ULR No. :TC592621000009874F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per IS: EPA Act 1986/PCLS/2010	With Amendment No.(s):
--	-------------------------------

PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample#	ETP Outlet Water (Power Plant)
b)	Grade / Variety / Type / Class / Size etc.	NA
c)	Brand Name	NA
d)	Declared Values,if any	NA
e)	Code No.	
f)	Batch Number#	NA
g)	D.O.M#	NA
h)	Date of Expiry#	NA
i)	Sample Quantity#	2 Ltr
j)	Batch Size/Location#	NA
k)	Mode of Packing	Packed in bottles
l)	Date of Receipt	06-09-2021
m)	Date of Start	06-09-2021
n)	Date of Completion	13-09-2021
o)	Seal (Intact/Not Intact/Unsealed)	NA
p)	IO'S Signature (Signed/Unsigned)	Unsigned
q)	Any Other Information	Sample collected by lab rep. on 30.08.2021
r)	Test Request Submitted By	Jindal Steel & Power Limited-Angul (Odisha)
s)	Manufactured By#	NA
t)	Supplied By#	NA

PART B : SUPPLIMENTARY INFORMATIONS



Saurabh Sharma
13-09-2021
Reviewer



13-09-2021
PremKumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.

(ISO 9001:2015 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)

(A Government Approved Test House)

86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)

Phone : (O) 0172-2561543, 2565825

Visit us : www.itclabs.com Email : customersupport@itclabs.com

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Test Report

Document QF : 2501

Page 2 of 3

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060102 Sample Reg. Date :06-09-2021 Report Date :13-09-2021 Report No. :ICE-2109130172 NABL ULR No. :TC592621000009874F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a. Reference to sampling procedure, whenever applicable	: N/A
b. Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any	: N/A
c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any	: N/A

Description				
Description		ETP Outlet Water (Power Plant)		
S.No.	Parameters	Method	Specification	Result
Discipline : Chemical				
Group : Pollution & Environment				
1. General Parameters				
a.	pH Value	IS:3025 (Part - 11):1983(RA:2017)	5.5-9	7.76
b.	Total Suspended Solids,(mg/l)	IS:3025(Part 17)	Max. 100	7
c.	Total Dissolved Solids (mg/l)	IS:3025(Part 16):1984(RA.2006)	Max. 2100	128
d.	Chemical Oxygen Demand(mg/l)	APHA-23rd Edition	Max. 250	12
e.	Bio-chemical Oxygen Demand, mg/l (3 days at 27°C)	IS:3025(P-44)	Max. 30	7
f.	Oil & Grease(mg/l)	IS:3025(P-39)	Max. 10	2.2
g.	Total Chromium as Cr (mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
h.	Iron(as Fe)(mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
i.	Ammonia as NH ₃ (mg/l)	APHA-23rd Edition	Max. 50	3.4

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sampling Procedure - SOP/ITC/EW/030

REMARKS :N/A


Saurabh Sharma
13-09-2021
Reviewer


13-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 3 of 3

Issued To

Jindal Steel & Power Limited
SH-63, Chendipada Road, Jindal Nagar, Angul
Angul

Sample Reg. No. :E01-2109060102
Sample Reg. Date :06-09-2021
Report Date :13-09-2021
Report No. :ICE-2109130172
NABL ULR No. :TC592621000009874F
Customer Ref. No.:WO
Letter Dated :03.04.2021

*****End Of Report*****



Saurabh Sharma
13-09-2021
Reviewer



13-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 1 of 3

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291078 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060216 NABL ULR No. :TC592621000011402F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per IS: EPA Act 1986/PCLS/2010	With Amendment No.(s):
--	-------------------------------

PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample [#]	ETP Outlet Water (Power Plant)
b)	Sample Condition	Good Condition
c)	Grade / Variety / Type / Class / Size etc.	NA
d)	Brand Name	NA
e)	Declared Values,if any	NA
f)	Code No.	
g)	Batch Number [#]	NA
h)	D.O.M [#]	NA
i)	Date of Expiry [#]	NA
j)	Sample Quantity [#]	2 Ltr
k)	Batch Size/Location [#]	NA
l)	Mode of Packing	Packed in bottles
m)	Date of Receipt	29-09-2021
n)	Date of Start	29-09-2021
o)	Date of Completion	06-10-2021
p)	Seal (Intact/Not Intact/Unsealed)	NA
q)	IO'S Signature (Signed/Unsigned)	Unsigned
r)	Any Other Information	Sample collected by lab rep. on 25.09.2021
s)	Test Request Submitted By	Jindal Steel & Power Limited-Angul (Odisha)
t)	Manufactured By [#]	NA


Saurabh Sharma
06-10-2021
Reviewer


06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 2 of 3

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291078 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060216 NABL ULR No. :TC592621000011402F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

u) Supplied By #	NA
------------------	----

PART B : SUPPLEMENTARY INFORMATIONS

a. Reference to sampling procedure, whenever applicable	: N/A
b. Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any	: N/A
c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any	: N/A

Description				
Description		ETP Outlet Water (Power Plant)		
S.No.	Parameters	Method	Specification	Result
Discipline : Chemical				
Group : Pollution & Environment				
1.	General Parameters			
a.	pH Value	IS:3025 (Part - 11):1983(RA:2017)	5.5-9	7.50
b.	Total Suspended Solids,(mg/l)	IS:3025(Part 17)	Max. 100	10
c.	Total Dissolved Solids (mg/l)	IS:3025(Part 16):1984(RA.2006)	Max. 2100	136
d.	Chemical Oxygen Demand(mg/l)	APHA-23rd Edition	Max. 250	16
e.	Bio-chemical Oxygen Demand, mg/l (3 days at 27°C)	IS:3025(P-44)	Max. 30	6
f.	Oil & Grease(mg/l)	IS:3025(P-39)	Max. 10	0.8
g.	Total Chromium as Cr (mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
h.	Iron(as Fe)(mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
i.	Ammonia as NH ₃ (mg/l)	APHA-23rd Edition	Max. 50	4.6

'#' represents Customer Defined Fields

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 3 of 3

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291078 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060216 NABL ULR No. :TC592621000011402F Customer Ref. No. :PO Letter Dated :03.04.2021
--	--

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sampling Procedure - SOP/ITC/EW/030

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.

86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)
Panchkula-134109 (Haryana)
Phone : (O) 0172-2561543, 2565825
Email : customersupport@itclabs.com
Visit us :www.itclabs.com

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Test Report

Document QF : 2501
Page 1 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030036 Sample Reg. Date :03-08-2021 Report Date :13-08-2021 Report No. :ICE-2108130336 (1) NABL ULR No. :TC592621000008585F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per IS: Schedule VI of E(P) Act, 1986 (Discharge to Inland Surface Water)	With Amendment No.(s):
---	-------------------------------

PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample#	ETP Outlet Water (CGP Bio ETP)
b)	Grade / Variety / Type / Class / Size etc.	NA
c)	Brand Name	NA
d)	Declared Values,if any	NA
e)	Code No.	
f)	Batch Number#	NA
g)	D.O.M#	NA
h)	Date of Expiry#	NA
i)	Sample Quantity#	8 Ltr
j)	Batch Size/Location#	NA
k)	Mode of Packing	Packed in can & in bottles
l)	Date of Receipt	03-08-2021
m)	Date of Start	03-08-2021
n)	Date of Completion	13-08-2021
o)	Seal (Intact/Not Intact/Unsealed)	NA
p)	IO'S Signature (Signed/Unsigned)	Unsigned
q)	Any Other Information	Sample collected by lab rep. on 28.07.2021
r)	Test Request Submitted By	Jindal Steel & Power Limited-Angul (Odisha)
s)	Manufactured By#	NA
t)	Supplied By#	NA

PART B : SUPPLEMENTARY INFORMATIONS

Saurabh Sharma
13-08-2021
Reviewer

13-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 2 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030036 Sample Reg. Date :03-08-2021 Report Date :13-08-2021 Report No. :ICE-2108130336 (1) NABL ULR No. :TC592621000008585F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a. Reference to sampling procedure, whenever applicable	: N/A
b. Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any	: N/A
c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any	: N/A

Description				
Description		ETP Outlet Water (CGP Bio ETP)		
S.No.	Parameters	Method	Specification	Result
Discipline : Chemical				
Group : Pollution & Environment				
1. General Parameters				
a.	Colour	IS:3025(Part4):1983(RA:2017)amd. no1	5 Max.	3
b.	Odour	IS:3025(Part 5):1983(RA:2017)	Not Specified	None
c.	pH Value	IS:3025 (Part - 11):1983(RA:2017)	5.5-9	7.92
d.	Total Suspended Solids,(mg/l)	IS:3025(Part 17)	Max. 100	9
e.	Total Dissolved Solids (mg/l)	IS:3025(Part 16):1984(RA.2006)	Max. 2100--	916
f.	Chemical Oxygen Demand(mg/l)	APHA-23rd Edition	Max. 250	94
g.	Bio-chemical Oxygen Demand, mg/l (3 days at 27°C)	IS:3025(P-44)	Max. 30	21
h.	Oil & Grease(mg/l)	IS:3025(P-39)	Max. 10	<0.1
i.	Lead(as Pb)(mg/l)	IS: 3025 (P-2)	Max. 0.1	BLQ(LOQ:0.05)
j.	Copper(As Cu)(mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
k.	Nickel(as Ni),mg/l	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
l.	Zinc(As Zn)(mg/l)	IS: 3025 (P-2)	Max. 5.0	0.05
m.	Total Residual Chlorine(mg/l)	IS:3025(Part 26):1986(RA:2014)amd no 1	Max. 1.0	BLQ(LOQ:1.0)

Saurabh Sharma
13-08-2021
Reviewer

13-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030036 Sample Reg. Date :03-08-2021 Report Date :13-08-2021 Report No. :ICE-2108130336 (1) NABL ULR No. :TC592621000008585F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

n.	Ammonical Nitrogen(As N)(mg/l)	APHA-23rd Edition Guidelines	Max. 50	11.5
o.	Total Kjeldahl Nitrogen (as N), (mg/l)	APHA-23rd Edition Guidelines	Max. 100	17.3
p.	Free Ammonia (as NH ₃)(mg/l)	APHA-23rd Edition	Max. 5.0	Nil
q.	Arsenic(as As)(mg/l)	IS: 3025 (P-2)	Max. 0.2	BLQ(LOQ:0.05)
r.	Mercury(As Hg)(mg/l)	IS: 3025 (P-2)	Max. 0.01	BLQ(LOQ:0.01)
s.	Cadmium(as Cd)(mg/l)	IS: 3025 (P-2)	Max. 2.0	BLQ(LOQ:0.05)
t.	Chromium (as Cr ⁶⁺),(mg/l)	IS:3025(Part-52)	Max. 0.1	BLQ(LOQ:0.01)
u.	Total Chromium as Cr (mg/l)	IS: 3025 (P-2)	Max. 2.0	BLQ(LOQ:0.05)
v.	Selenium(as Se)(mg/l)	IS: 3025 (P-2)	Max. 0.05	BLQ(LOQ:0.05)
w.	Cyanide as CN, (mg/l)	IS:3025(P-27)	Max. 0.2	<0.02
x.	Fluoride(as F), (mg/l)	IS:3025(P-60)	Max. 2.0	1.1
y.	Dissolved Phosphate(mg/l)	APHA-23rd Edition	Max. 5.0	4.2
z.	Sulphide(as S)(mg/l)	IS:3025(Part 29)	Max. 2.0	BLQ(LOQ:0.5)
aa.	Manganese(as Mn)(mg/l)	IS: 3025 (P-2)	Max. 2	BLQ(LOQ:0.05)
ab.	Iron(as Fe)(mg/l)	IS: 3025 (P-2)	Max. 3.0	0.10
ac.	Nitrate as NO ₃ (mg/l)	IS:3025(P-34)	Max. 10	8.5
ad.	Phenolic Compounds (as C ₆ H ₅ OH) (mg/l)	IS:3025(P-43)	Max. 1.0	BLQ(LOQ:0.1)
ae.	Vanadium(As V)(mg/l)	IS: 3025 (P-2)	Max. 0.2	BLQ(LOQ:0.05)
af.	Bio Assay Test	IS:6582-1971	Minimum 90 % survival of fish was observed after 96 hours in 100 % effluent	More than 90% survival of fish after 96 hours in 100% effluent
ag.	Temperature(°C)	IS: 3025 (P-9)	shall not exceed 5oC above the receiving water temperature	26.1
ah.	Dissolved Oxygen(mg/l)	IS:3025(P-38)	Not Specified	7.5

'*' represents categories/test parameters not covered under NABL '#' represents Customer Defined Fields


Saurabh Sharma
13-08-2021
Reviewer


13-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 4 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030036 Sample Reg. Date :03-08-2021 Report Date :13-08-2021 Report No. :ICE-2108130336 (1) NABL ULR No. :TC592621000008585F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per Schedule VI of E(P) Act, 1986 (Discharge to Inland Surface Water), Sampling Procedure - SOP/ITC/EW/030,

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
13-08-2021
Reviewer



13-08-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 1 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060101 Sample Reg. Date :06-09-2021 Report Date :16-09-2021 Report No. :ICE-2109160279 (1) NABL ULR No. :TC592621000010058F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per IS: Schedule VI of E(P) Act, 1986 (Discharge to Inland Surface Water)	With Amendment No.(s):
---	-------------------------------

PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample#	ETP Outlet Water (CGP Bio ETP)
b)	Grade / Variety / Type / Class / Size etc.	NA
c)	Brand Name	NA
d)	Declared Values,if any	NA
e)	Code No.	
f)	Batch Number#	NA
g)	D.O.M#	NA
h)	Date of Expiry#	NA
i)	Sample Quantity#	8 Ltr
j)	Batch Size/Location#	NA
k)	Mode of Packing	Packed in bottles & in cans
l)	Date of Receipt	06-09-2021
m)	Date of Start	06-09-2021
n)	Date of Completion	16-09-2021
o)	Seal (Intact/Not Intact/Unsealed)	NA
p)	IO'S Signature (Signed/Unsigned)	Unsigned
q)	Any Other Information	Sample collected by lab rep. on 30.08.2021
r)	Test Request Submitted By	Jindal Steel & Power Limited-Angul (Odisha)
s)	Manufactured By#	NA
t)	Supplied By#	NA

PART B : SUPPLEMENTARY INFORMATIONS

Saurabh Sharma
16-09-2021
Reviewer

16-09-2021
PremKumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.

(ISO 9001:2015 & 14001:2015 OHSAS 18001:2007 Certified Laboratory)

(A Government Approved Test House)

86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)

Phone : (O) 0172-2561543, 2565825

Visit us : www.itclabs.com Email : customersupport@itclabs.com

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Test Report

Document QF : 2501

Page 2 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060101 Sample Reg. Date :06-09-2021 Report Date :16-09-2021 Report No. :ICE-2109160279 (1) NABL ULR No. :TC592621000010058F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

a. Reference to sampling procedure, whenever applicable	: N/A
b. Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any	: N/A
c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any	: N/A

Description				
Description		ETP Outlet Water (CGP Bio ETP)		
S.No.	Parameters	Method	Specification	Result
Discipline : Chemical				
Group : Pollution & Environment				
1.	General Parameters			
a.	Colour	IS:3025(Part4):1983(RA:2017)amd. no1	Max. 5	250
b.	Odour	IS:3025(Part 5):1983(RA:2017)	Not Specified	Mild
c.	pH Value	IS:3025 (Part - 11):1983(RA:2017)	5.5-9	8.19
d.	Total Suspended Solids,(mg/l)	IS:3025(Part 17)	Max. 100	44
e.	Total Dissolved Solids (mg/l)	IS:3025(Part 16):1984(RA.2006)	Max. 2100	556
f.	Chemical Oxygen Demand(mg/l)	APHA-23rd Edition	Max. 250	163
g.	Bio-chemical Oxygen Demand, mg/l (3 days at 27°C)	IS:3025(P-44)	Max. 30	24
h.	Oil & Grease(mg/l)	IS:3025(P-39)	Max. 10	1.6
i.	Lead(as Pb)(mg/l)	IS: 3025 (P-2)	Max. 0.1	BLQ(LOQ:0.05)
j.	Copper(As Cu)(mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
k.	Nickel(as Ni),mg/l	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
l.	Zinc(As Zn)(mg/l)	IS: 3025 (P-2)	Max. 5.0	BLQ(LOQ:0.05)
m.	Total Residual Chlorine(mg/l)	IS:3025(Part 26):1986(RA:2014)amd no 1	Max. 1.0	BLQ(LOQ:1.0)

Saurabh Sharma
16-09-2021
Reviewer

16-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 3 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060101 Sample Reg. Date :06-09-2021 Report Date :16-09-2021 Report No. :ICE-2109160279 (1) NABL ULR No. :TC592621000010058F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

n.	Ammonical Nitrogen(As N)(mg/l)	APHA-23rd Edition Guidelines	Max. 50	10.7
o.	Total Kjeldahl Nitrogen (as N), (mg/l)	APHA-23rd Edition Guidelines	Max. 100	17.3
p.	Free Ammonia (as NH ₃)(mg/l)	APHA-23rd Edition	Max. 5.0	Nil
q.	Arsenic(as As)(mg/l)	IS: 3025 (P-2)	Max. 0.2	BLQ(LOQ:0.05)
r.	Mercury(As Hg)(mg/l)	IS: 3025 (P-2)	Max. 0.01	BLQ(LOQ:0.01)
s.	Cadmium(as Cd)(mg/l)	IS: 3025 (P-2)	Max. 2.0	BLQ(LOQ:0.05)
t.	Chromium (as Cr ⁶⁺),(mg/l)	IS:3025(Part-52)	Max. 0.1	BLQ(LOQ:0.01)
u.	Total Chromium as Cr (mg/l)	IS: 3025 (P-2)	Max. 2.0	BLQ(LOQ:0.05)
v.	Selenium(as Se)(mg/l)	IS: 3025 (P-2)	Max. 0.05	BLQ(LOQ:0.05)
w.	Cyanide as CN, (mg/l)	IS:3025(P-27)	Max. 0.2	Absent
x.	Fluoride(as F), (mg/l)	IS:3025(P-60)	Max. 2.0	0.8
y.	Dissolved Phosphate(mg/l)	APHA-23rd Edition	Max. 5.0	3.9
z.	Sulphide(as S)(mg/l)	IS:3025(Part 29)	Max. 2.0	BLQ(LOQ:0.5)
aa.	Manganese(as Mn)(mg/l)	IS: 3025 (P-2)	Max. 2	BLQ(LOQ:0.05)
ab.	Iron(as Fe)(mg/l)	IS: 3025 (P-2)	Max. 3.0	0.06
ac.	Nitrate as NO ₃ (mg/l)	IS:3025(P-34)	Max. 10	BLQ(LOQ:1.0)
ad.	Phenolic Compounds (as C ₆ H ₅ OH) (mg/l)	IS:3025(P-43)	Max. 1.0	BLQ(LOQ:0.1)
ae.	Vanadium(As V)(mg/l)	IS: 3025 (P-2)	Max. 0.2	BLQ(LOQ:0.05)
af.	Bio Assay Test	IS:6582-1971	Minimum 90 % survival of fish was observed after 96 hours in 100 % effluent	90% survival of fishes after 96 hours in 100% effluent
ag.	Temperature(°C)	IS: 3025 (P-9)	Shall not exceed 5°C above the receiving water temperature	26.1
ah.	Dissolved Oxygen(mg/l)	IS:3025(P-38)	Not Specified	6.2

'*' represents categories/test parameters not covered under NABL '#' represents Customer Defined Fields


Saurabh Sharma
16-09-2021
Reviewer


16-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 4 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060101 Sample Reg. Date :06-09-2021 Report Date :16-09-2021 Report No. :ICE-2109160279 (1) NABL ULR No. :TC592621000010058F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per Schedule VI of E(P) Act, 1986 (Discharge to Inland Surface Water), Sampling Procedure - SOP/ITC/EW/030

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
16-09-2021
Reviewer



16-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 1 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291077 Sample Reg. Date :29-09-2021 Report Date :08-10-2021 Report No. :ICE-2110080312 (1) NABL ULR No. :TC592621000011545F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per IS: Schedule VI of E(P) Act, 1986 (Discharge to Inland Surface Water)	With Amendment No.(s):
---	-------------------------------

PART A : PARTICULARS OF SAMPLE SUBMITTED

a)	Nature of Sample#	ETP Outlet Water (CGP Bio ETP)
b)	Sample Condition	Good Condition
c)	Grade / Variety / Type / Class / Size etc.	NA
d)	Brand Name	NA
e)	Declared Values,if any	NA
f)	Code No.	
g)	Batch Number#	NA
h)	D.O.M#	NA
i)	Date of Expiry#	NA
j)	Sample Quantity#	8 Ltr
k)	Batch Size/Location#	NA
l)	Mode of Packing	Packed in bottles & in cans
m)	Date of Receipt	29-09-2021
n)	Date of Start	29-09-2021
o)	Date of Completion	08-10-2021
p)	Seal (Intact/Not Intact/Unsealed)	NA
q)	IO'S Signature (Signed/Unsigned)	Unsigned
r)	Any Other Information	Sample collected by lab rep. on 25.09.2021
s)	Test Request Submitted By	Jindal Steel & Power Limited-Angul (Odisha)


Saurabh Sharma
08-10-2021
Reviewer


08-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 2 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291077 Sample Reg. Date :29-09-2021 Report Date :08-10-2021 Report No. :ICE-2110080312 (1) NABL ULR No. :TC592621000011545F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

t) Manufactured By#	NA
u) Supplied By#	NA

PART B : SUPPLEMENTARY INFORMATIONS

a. Reference to sampling procedure, whenever applicable	: N/A
b. Supporting documents for the measurement taken and results derived like graphs, tables, sketches and / or photographs as appropriate to test reports, if any	: N/A
c. Deviation from the test methods as prescribed in relevant ISS/WORK Instruments, if any	: N/A

Description				
Description		ETP Outlet Water (CGP Bio ETP)		
S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Pollution & Environment			
1.	General Parameters			
a.	Colour	IS:3025(Part4):1983(RA:2017)amd. no1	Max. 5	Colourless
b.	Odour	IS:3025(Part 5):1983(RA:2017)	Not Specified	None
c.	pH Value	IS:3025 (Part - 11):1983(RA:2017)	5.5-9	8.01
d.	Total Suspended Solids,(mg/l)	IS:3025(Part 17)	Max. 100	51
e.	Total Dissolved Solids (mg/l)	IS:3025(Part 16):1984(RA.2006)	Max. 2100	1164
f.	Chemical Oxygen Demand(mg/l)	APHA-23rd Edition	Max. 250	182
g.	Bio-chemical Oxygen Demand, mg/l (3 days at 27°C)	IS:3025(P-44)	Max. 30	26
h.	Oil & Grease(mg/l)	IS:3025(P-39)	Max. 10	1.2
i.	Lead(as Pb)(mg/l)	IS: 3025 (P-2)	Max. 0.1	BLQ(LOQ:0.05)

Saurabh Sharma
08-10-2021
Reviewer

08-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 3 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291077
	Sample Reg. Date :29-09-2021
	Report Date :08-10-2021
	Report No. :ICE-2110080312 (1)
	NABL ULR No. :TC592621000011545F
	Customer Ref. No.: PO
	Letter Dated :03.04.2021

j.	Copper(As Cu)(mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
k.	Nickel(as Ni),mg/l	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
l.	Zinc(As Zn)(mg/l)	IS: 3025 (P-2)	Max. 5.0	BLQ(LOQ:0.05)
m.	Total Residual Chlorine(mg/l)	IS:3025(Part 26):1986(RA:2014)amnd no 1	Max. 1.0	BLQ(LOQ:1.0)
n.	Ammonical Nitrogen(As N)(mg/l)	APHA-23rd Edition Guidelines	Max. 50	12.3
o.	Total Kjeldahl Nitrogen (as N), (mg/l)	APHA-23rd Edition Guidelines	Max. 100	18
p.	Free Ammonia (as NH ₃)(mg/l)	APHA-23rd Edition	Max. 5.0	Nil
q.	Arsenic(as As)(mg/l)	IS: 3025 (P-2)	Max. 0.2	BLQ(LOQ:0.05)
r.	Mercury(As Hg)(mg/l)	IS: 3025 (P-2)	Max. 0.01	BLQ(LOQ:0.01)
s.	Cadmium(as Cd)(mg/l)	IS: 3025 (P-2)	Max. 2.0	BLQ(LOQ:0.05)
t.	Chromium (as Cr ⁶⁺),(mg/l)	IS:3025(Part-52)	Max. 0.1	BLQ(LOQ:0.01)
u.	Total Chromium as Cr (mg/l)	IS: 3025 (P-2)	Max. 2.0	BLQ(LOQ:0.05)
v.	Selenium(as Se)(mg/l)	IS: 3025 (P-2)	Max. 0.05	BLQ(LOQ:0.05)
w.	Cyanide as CN, (mg/l)	IS:3025(P-27)	Max. 0.2	Absent
x.	Fluoride(as F), (mg/l)	IS:3025(P-60)	Max. 2.0	1.2
y.	Dissolved Phosphate(mg/l)	APHA-23rd Edition	Max. 5.0	BLQ(LOQ:0.1)
z.	Sulphide(as S)(mg/l)	IS:3025(Part 29)	Max. 2.0	BLQ(LOQ:0.5)
aa.	Manganese(as Mn)(mg/l)	IS: 3025 (P-2)	Max. 2	BLQ(LOQ:0.05)
ab.	Iron(as Fe)(mg/l)	IS: 3025 (P-2)	Max. 3.0	BLQ(LOQ:0.05)
ac.	Nitrate as NO ₃ (mg/l)	IS:3025(P-34)	Max. 10	BLQ(LOQ:1.0)
ad.	Phenolic Compounds (as C ₆ H ₅ OH) (mg/l)	IS:3025(P-43)	Max. 1.0	BLQ(LOQ:0.1)
ae.	Vanadium(As V)(mg/l)	IS: 3025 (P-2)	Max. 0.2	BLQ(LOQ:0.05)
af.	Bio Assay Test	IS:6582-1971	Minimum 90 % survival of fish was observed after 96 hours in 100 % effluent	90% survival of fishes observed in 100% effluent after 96 hours

Saurabh Sharma
08-10-2021
Reviewer

08-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 4 of 4

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291077 Sample Reg. Date :29-09-2021 Report Date :08-10-2021 Report No. :ICE-2110080312 (1) NABL ULR No. :TC592621000011545F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

ag.	Temperature(°C)	IS: 3025 (P-9)	Shall not exceed 5°C above the receiving water temperature	26.2
ah.	Dissolved Oxygen(mg/l)	IS:3025(P-38)	Not Specified	6.6

'*' represents categories/test parameters not covered under NABL '#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010, Sampling Procedure - SOP/ITC/EW/030, Purpose - For Self monitoring

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
08-10-2021
Reviewer



08-10-2021
PremKumar
[Authorized Signatory]

Interstellar Testing Centre Pvt. Ltd.

86, Industrial Area, Phase-1, Panchkula-134109 (Haryana)
Panchkula-134109 (Haryana)
Phone : (O) 0172-2561543, 2565825
Email : customersupport@itclabs.com
Visit us :www.itclabs.com

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Ref. No.: EMD/LAB/2021-22/12

Date: 15.04.2021

AMBIENT NOISE MONITORING REPORT

Area : Plant Area
 Monitoring date : 12.04.21
 Monitoring done by : EMD

Sl. No.	Location	Result dB (A)	
		Day time (6 am – 10 pm)	Night time (10 pm – 6 am)
1	Kaliakata gate (N20°53.99' E84°59.14')	72.1	62.4
2	Labor hutment gate (N20°53.17' E84°59.90')	73.1	68.7
3	Golabandha gate (N20°51.95' E85°00.06')	72.6	68.1
4	DRI gate (N20°52.75' E84°58.88')	70.2	66.8
5	Backside of CGP (N20°53.79' E84°59.62')	70.1	63.4
6	Phase 2 gate (N20°53.45' E84°58.89')	72.4	68.1
7	Sankerjang gate (N20°51.73' E84°59.48')	73.8	66.3
Standard		75	70


 Lab (I/C)


 HOD (EMD)

Ref. No.: EMD/LAB/2021-22/29

Date: 17.05.2021

AMBIENT NOISE MONITORING REPORT

Area : Plant Area
Monitoring date : 10.05.21
Monitoring done by : EMD

Sl. No.	Location	Result dB (A)	
		Day time (6 am – 10 pm)	Night time (10 pm – 6 am)
1	Kaliakata gate (N20°53.99' E84°59.14')	71.6	63.4
2	Labor hutment gate (N20°53.17' E84°59.90')	74.5	67.0
3	Golabandha gate (N20°51.95' E85°00.06')	73.7	66.0
4	DRI gate (N20°52.75' E84°58.88')	72.9	67.4
5	Backside of CGP (N20°53.79' E84°59.62')	71.1	61.2
6	Phase 2 gate (N20°53.45' E84°58.89')	74.6	67.6
7	Sankerjang gate (N20°51.73' E84°59.48')	72.8	65.2
Standard		75	70


Lab (I/C)


HOD (EMD)

Ref. No.: EMD/LAB/2021-22/46

Date: 14.06.2021

AMBIENT NOISE MONITORING REPORT

Area : Plant Area
Monitoring date : 08.06.21
Monitoring done by : EMD

Sl. No.	Location	Result dB (A)	
		Day time (6 am – 10 pm)	Night time (10 pm – 6 am)
1	Kaliakata gate (N20°53.99' E84°59.14')	70.2	61.3
2	Labor hutment gate (N20°53.17' E84°59.90')	71.8	68.2
3	Golabandha gate (N20°51.95' E85°00.06')	73.8	67.1
4	DRI gate (N20°52.75' E84°58.88')	72.6	68.0
5	Backside of CGP (N20°53.79' E84°59.62')	69.6	62.4
6	Phase 2 gate (N20°53.45' E84°58.89')	74.1	68.7
7	Sankerjang gate (N20°51.73' E84°59.48')	70.9	66.4
Standard		75	70


Lab (I/C)


HOD (EMD)

Ref. No.: EMD/LAB/2021-22/64

Date: 19.07.2021

AMBIENT NOISE MONITORING REPORT

Area : Plant Area
Monitoring date : 14.07.21
Monitoring done by : EMD

Sl. No.	Location	Result dB (A)	
		Day time (6 am – 10 pm)	Night time (10 pm – 6 am)
1	Kaliakata gate (N20°53.99' E84°59.14')	72.8	64.9
2	Labor hutment gate (N20°53.17' E84°59.90')	74.4	65.7
3	Golabandha gate (N20°51.95' E85°00.06')	71.0	63.6
4	DRI gate (N20°52.75' E84°58.88')	72.7	64.7
5	Backside of CGP (N20°53.79' E84°59.62')	71.5	63.8
6	Phase 2 gate (N20°53.45' E84°58.89')	73.2	68.3
7	Sankerjang gate (N20°51.73' E84°59.48')	71.7	64.3
Standard		75	70

apal
Lab (I/C)

[Signature]
HOD (EMD)

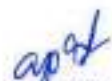
Ref. No.: EMD/LAB/2021-22/80

Date: 14.08.2021

AMBIENT NOISE MONITORING REPORT

Area : Plant Area
Monitoring date : 10.08.21
Monitoring done by : EMD

Sl. No.	Location	Result dB (A)	
		Day time (6 am – 10 pm)	Night time (10 pm – 6 am)
1	Kaliakata gate (N20°53.99' E84°59.14')	70.4	61.4
2	Labor hutment gate (N20°53.17' E84°59.90')	72.6	64.3
3	Golabandha gate (N20°51.95' E85°00.06')	70.3	62.4
4	DRI gate (N20°52.75' E84°58.88')	73.2	65.1
5	Backside of CGP (N20°53.79' E84°59.62')	72.9	64.9
6	Phase 2 gate (N20°53.45' E84°58.89')	73.6	65.8
7	Sankerjang gate (N20°51.73' E84°59.48')	72.8	61.6
Standard		75	70


Lab (I/C)


HOD (EMD)

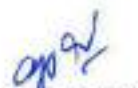
Ref. No.: EMD/LAB/2021-22/96

Date: 13.09.2021

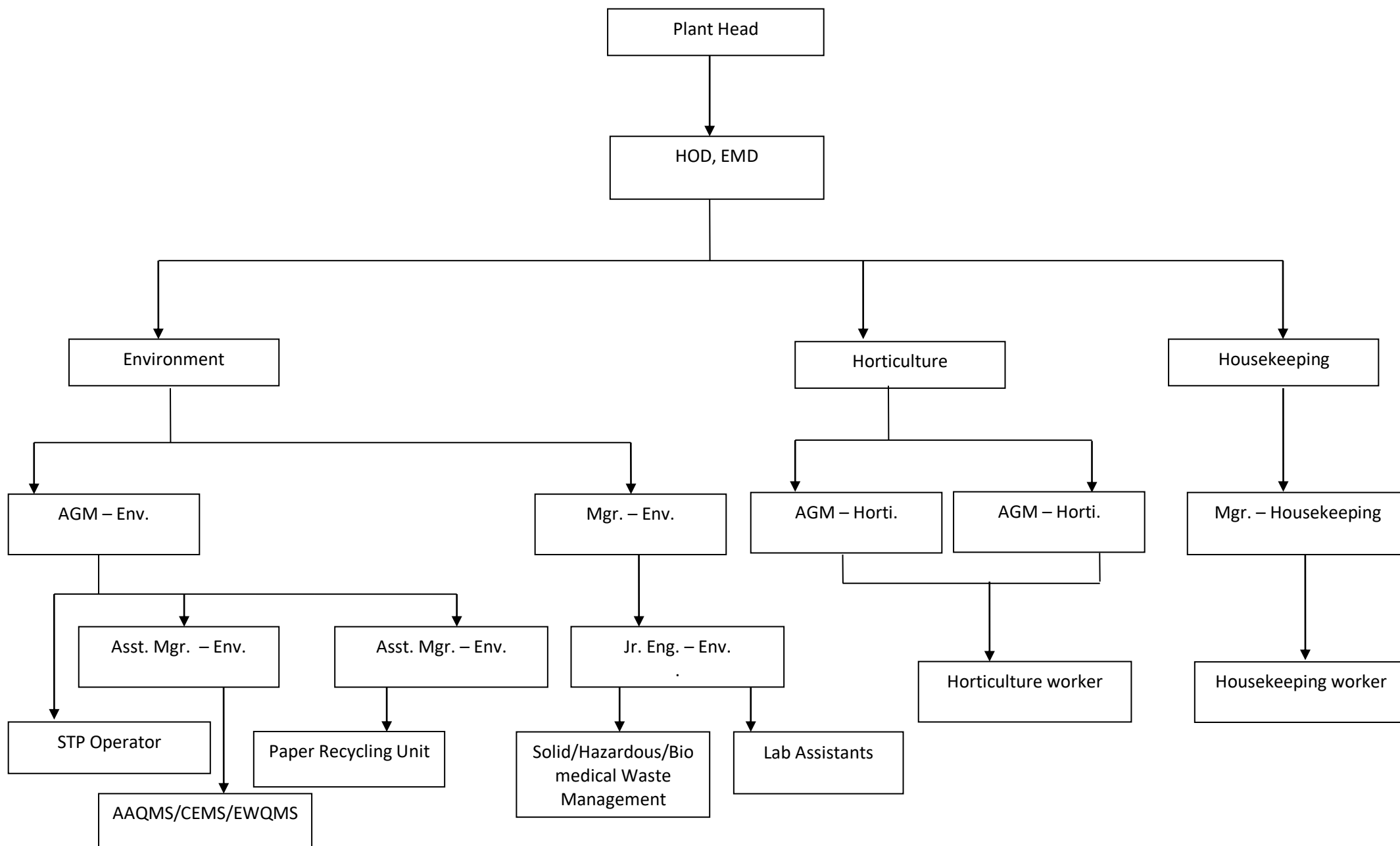
AMBIENT NOISE MONITORING REPORT

Area : Plant Area
Monitoring date : 09.09.21
Monitoring done by : EMD

Sl. No.	Location	Result dB (A)	
		Day time (6 am – 10 pm)	Night time (10 pm – 6 am)
1	Kaliakata gate (N20°53.99' E84°59.14')	71.3	67.4
2	Labor hutment gate (N20°53.17' E84°59.90')	73.7	66.5
3	Golabandha gate (N20°51.95' E85°00.06')	71.9	66.9
4	DRI gate (N20°52.75' E84°58.88')	74.1	68.4
5	Backside of CGP (N20°53.79' E84°59.62')	72.8	65.9
6	Phase 2 gate (N20°53.45' E84°58.89')	72.9	64.7
7	Sankerjang gate (N20°51.73' E84°59.48')	71.7	63.1
Standard		75	70


Lab (I/C)


HOD (EMD)

ORGANOGRAM OF ENVIRONMENT MANAGEMENT DEPARTMENT

List of Instruments present in EMD Lab

Sl. No.	Name of the equipment	Make	Model	Total number
1	Digital Balance	Denver	SI234	1
2	pH meter	Sistronics	6793	1
3	Turbidity meter	Sistronics	431	1
4	UV Spectrophotometer	Shimatzu	UV1800	1
5	Ion selective electrode	Thermo Fisher	VSTAR	2
6	Portable DO meter	WTW	DUROX 325	1
7	BOD self check	Velp	BOD EVO sensor	6
8	BOD incubator	ACMAS	OR403	1
9	COD digester	Spectra Lab	2015M	1
10	Flame photometer	BWB	BWB XP	1
11	Hot air oven	Acmas	ACM220661	1
12	Oil & grease analyzer	Horiba	OCMA 350E	1
13	Water level indicator	Insitu INC		1
14	Portable TDS meter	Hach	Pocket Pro Multi 2	1
15	Hot Plate	Unitech	UTS1.27C	1
16	Water Bath	Unitech	UTS1.05A	1
17	Flue gas analyzer	Kane	KM9106	2
18	Stack monitoring kit	Envirotech	APM620 & VSS1	2
19	PM10 analyzer	Envirotech	APM460BL	8
20	PM2.5 analyzer	Envirotech	APM550	8
21	Sound level meter	Cirrus & Quest	CR171B & DLX	2
22	Area heat stress monitor	Quest	3M	1
23	Anemometer	Pacerist	DA 400	1
24	Online ambient air quality monitoring analyzer	Environnement SA		4
25	Online Meteorological station	Ecotech, Australia		2
26	Portable dust analyzer	Serrex Technology	PM1025	1

JSPL FOUNDATION

THE CSR ARM OF

JINDAL STEEL & POWER LTD.



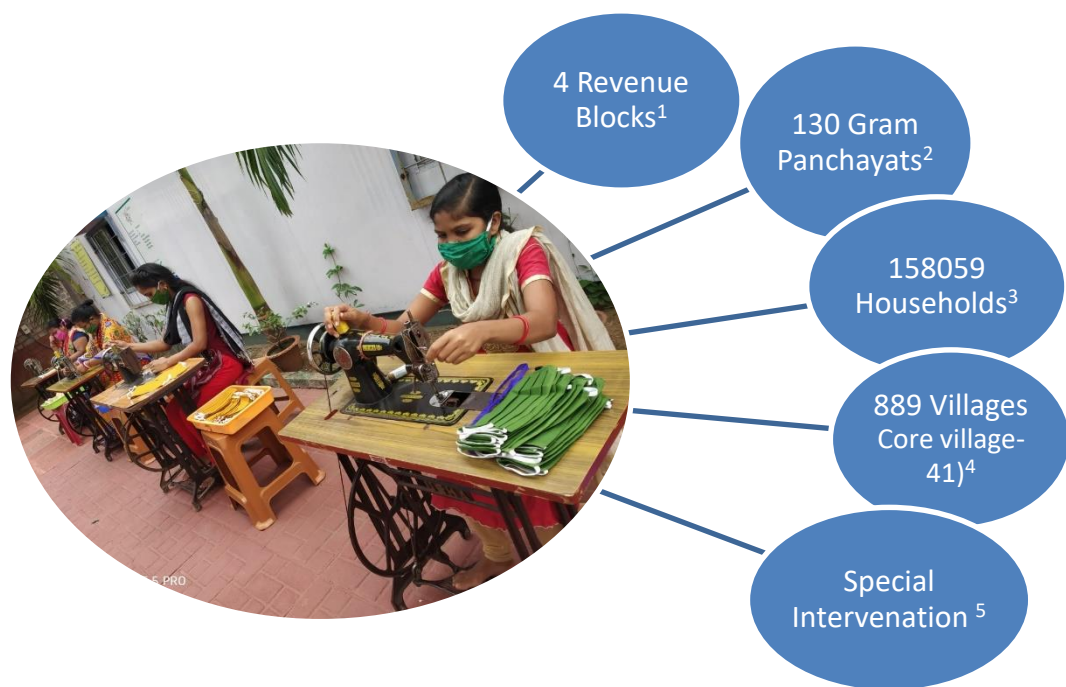
(1st April 2021 – 30th Sep'2021)

CORPORATE SOCIAL RESPONSIBILITY (CSR)

JSPL Foundation is the executing arm of Jindal Steel and Power Limited (JSPL) Group CSR activities which works with the community near business operations of the JSPL group as well as other parts of the country.

JSPL Foundation is dedicated to the cause of humanity and is focused upon improving the Human Development Index by way of positioning itself as a parenting force of various Social Change Agents operating at the ground level. The Foundation has been guiding force of the sustainable social development initiatives implemented by Jindal Steel & Power across its business locations. The CSR interventions are focused on enhancing quality of life of the community in the vicinity of business locations by way of improving community healthcare and education, and also developing critical small civic infrastructures besides generating sustainable livelihood option, promoting sports, art and culture.

The Foundation has aligned its programmes with the Government and other developmental agencies with an objective of bringing about a radical transformation in the lives of the communities and integrating them into the mainstream development process of the country. The Foundation drives holistic community initiatives to help address some of the persistent social challenges in the realms of Healthcare, Water and Sanitation, Education & Skill Development, Infrastructure & Community Development, and Empowerment of Women. It strongly believes that sustainable community development is essential for harmony between the community and the industry. It endeavours to make a positive contribution to the underprivileged communities by supporting a wide range of socio-economic, educational and health initiatives.



¹ Core Block: Chhendipada and Banarpal. Additional Block: Pallahara (Project SNEHA) and Angul (Kishori Express)

² Core GP (16 of Chhendipada and Banarpal), Kishori Express (Angul – 34, Banarpal – 35, Chhendipada – 34 = 103 GPs), Project SNEHA (Pallahara - 27 GPs)

³ Households: 8227 households and Special projects 2565 Households=10792.

⁴ Village (core village 41 of Chhendipada and Banarpal), Kishori Express (Angul – 230, Banarpal – 156, Chhendipada – 184), Project SNEHA (Pallahara - 319)=889

⁵ Special Intervention village: **1. Kishori Express** -: Chhendipada (184), Banarpal (156) and Angul (230) Blocks of Angul **2. Project SNEHA** -: Pallahara (319) **3. Watershed Management** -: Banarpal (5), **4. Address SAM** -: Banarpal (12), Chhendipada (10) Note: Village number of SI. 3 & 4 included in village number of SI. No. 1.

Addressing 2nd Surge of COVID Pandemic -2021

- 394.5 ton Liquid Oxygen provided to COVID Hospital to address the emergency need of the COVID affected patient admitted to various hospitals.
- Covid Screening conducted at 149 villages where screening conducted for 10292 villagers.
- Nine institutions including Old age homes, Child care homes, home for destitute women have been provided with dry food materials for 3 months so that there will be sufficient food in stock with them to meet their daily food requirements. 300 people (**81000 meals**) are benefitted due to this service.
- Empty oxygen cylinder provided to Government.
- 5000 Double layer cotton nose masks and 500 alcohol based hand sanitizer bottles have been provided to District Administration, Angul for needy communities.
- Mask, Herbal Handwash, Sanitiser provided to villagers and village sanitization was conducted. 14 hoarding displayed at village level for sensitization. Under these activities more than 55000 villagers got benefitted.
- 2000 family Packets of dry food ration consisting Rice, Dal, White Pea, Soya chunk, spices, oil, salt were provided for the family who are under isolation / home quarantine.
- To avoid the community screening village sanitization conducted for 35 villages.
- Sensitization through online messages, video calling, audio video clips, telephonic call are being conducted where more than 500 villagers every day are being Sensitized.
- Online health services through telemedicine center provided to villagers near phase-2 area.

OTHER HEALTH INITIATIVES

- **Kishori Express**, an anaemia control programme for adolescent girls is implemented in Banarpal & Angul blocks of Angul district through two customized vehicle equipped with a LCD screen, trained staff, sanitary napkins, haemometer, hand-washing kits, IFA tablets, IEC materials. It aims at improving the health of adolescent girls through regular hemoglobin check-up, awareness creation, as well as nutrition supplementation. In the reporting period 42628 girls being covered under the project. From the year 2011 we have covered 1.94 lakhs adolescent girls through this innovative initiative changing the quality of life of rural girls.
- A total of 22675 high risk populations have been covered under **HIV/AIDS programme** through ICTC, TI Agency (Utkal Sevak Samaj). This includes the employees, contractual workers, migrant workers, ANC mothers and truckers.
- The **health care centre** which was inaugurated by CDMO Angul on 2nd August 2017 is providing its service to the people of 9 periphery villages. During the reporting period 1819 patients were catered through the centre.
- In order to address the problem of poor health status of elderly people especially in our vicinity, the **project SWASTI** has introduced to provide customized health care to address physical, Mental and spiritual wellbeing of the elderly people suffering from age related health problems. Under the project, the elderly are getting services through a dedicated center equipped with basic physiotherapy equipment. Through the center 721 elderly are being benefitted during the reported period.

- As the part of the preventive health care through **community based health awareness**, 53301 populations have provided with the knowledge on Personal Hygiene, Mother and child care, 1000 day approach, Vector born disease control, sanitation & Hand wash etc. Special focus given on the precautionary measure for prevention of Corona Virus, villagers were sensitized on COVID-19 through Whats app Message, audio visual message, Poster etc.
- With an objective to reach out the truck drivers and providing them with primary eye health services, the Project **National Truckers Eye Health Programme** has been initiated from last year at the Transport Nagar-JSPL Campus in partnership with Sightsaver India. Project focused on more inclusive, accessible and sustainable eye health services and reducing accidents which are because of eyes problems to truck drivers. 1864 Truckers are being covered under the project.
- Under the Employer Led Model of **TB Elimination Programme** 53719 person were benefitted in sensitization and screening programme.
- 206 Units of Blood collected through Voluntary **Blood Donation Camps** in collaboration with the District Red Cross Society. It was handed over to District Blood Bank for the benefit of critical patient.
- **Nutri-garden (Mo Upakari Bagicha)** was developed in 95 Anganawadi center where Adolescent girls, pregnant women, lactating mothers and preschool children are being benefitted.
- To provide **safe drinking water** to the villagers of nearby villages two cold drinking water vehicles are in operation since July 2015 and March 2017. During the reporting period, both the vehicles have provided water to 611250 population of the plant vicinity.
- With an objective to promote holistic development of children and senior citizens, the JSPL Foundation has formulated a specialized programme to cater to the needy and the underprivileged in the society especially to the poor children (single parent, parentless), senior citizens, destitute, specially abled and Covid affected persons/ children. The areas of interventions are in health care, Nutrition, Education and skill building, basic enabling infrastructure and construction of civil infrastructure wherever feasible. The project covers 5 Senior Citizen's Home, 5 Children Home and 204 individuals residing at Community. All total 592 persons are being covered under the Special Project, SNEHA.
- With an objective of eradication of hunger among the children of Primitive Tribes, since 2017, **the Project SNEHA** is operational at interior pocket of Pallahara Block in partnership with District Administration, ICDS & Health Deptt.. Due to difficult terrain and scattered inhabitation it was a very difficult task for the children (3-6 year age) of tribal communities to access quality food from the tagging Anganawadi Center which was leading to child malnutrition, later into acute malnourishment. In the Phase I of the project, JSPL Foundation had provided food materials to all the identified 1206 children and in the second phase JSPL foundation was asked to focus on three aspects i.e. Supply of Hygiene Kit, Providing Incentive to Anganwadi Worker & Helper and organising quarterly health camp for malnourished children. Whereas National Health Mission, Integrated Child Development Services and Rural Water Supply and Sanitation of Pallahara look after the other aspects to bring development among the health condition of these children and their family. In the phase III, ICDS started providing hot cooked meals to the children through WSHGs in the block to 1206 targeted children of the age group (3-6 years) and Health deptt. was scheduled to conduct the Health camp. JSPL Foundation has been given the responsibilities which were identified as critical gap for effective implementation of the

project like incentive to WSHG Members for preparing and serving food to the children, Incentive to Anganawadi worker and helper for the enhancement of nutritional status of malnourished child, conducted health and awareness camp.

During this reporting year due to the Covid-19 restriction all Anganawadi's were closed and dry ration was provided to the doorstep of children. Hence the modalities was changed and 188 numbers of baby weighing scale & 188 numbers of height meter were provided to CDPO, Pallahara for ensuring growth monitoring of the children. Under the programme 12846 children (0-5year age group) were benefitted.

QUALITY EDUCATION:

- Supplementing government efforts for infrastructure facilities at school, improving classroom amenities for students in the community and providing teaching and learning support material in the vernacular medium schools.
- Augmentation of employability & job orientation of youth through skill building courses at O.P Jindal Community College to 20064 youths (cumulative).
- To improve the Teachers Student Ratio in 24 schools (1:76 to 1:25) through support of 32 Voluntary Community Teachers in 18 villages. The programme benefitted 3151 Students.
- Pre-school facilities (**Prarambha**) at Badamahitala with nutritional supplementation program to 25 children. During the reporting year Preschool are being closed due to COVID-19.
- **OP Jindal Scholarship** is provided to meritorious students every year to pursue their education. In FY 2020-21, 33 students have received scholarship under categories like OP Jindal Jewel and OP Jindal Star.
- **DAV Savitri Jindal High School** was founded to develop a model vernacular school wherein, this could: augment the availability and quality of extracurricular activities for holistic personality development, provide need-based capacity building to enable the teaching staff to create a child-friendly learning environment, focused on first generation learners, support students' physical and psychological development, and inculcate good behaviour and hygienic practices for good health. For this program, there is a partnership with Dayanand Anglo Vedic College Management Committee (DAVCMC), whereby DAV extends its school management expertise and proven models to provide holistic, high-quality education in the vernacular medium. 350 children are enrolled in DAV Savitri Jindal High School. The majority of the students enrolled in the school belong to economically weaker sections.
- **Asha The Hope**, a special project has been initiated for children with disabilities. Through the project Physiotherapy, Occupational therapy, Special education, Speech therapy and audiometry, Music and Recreational Therapy, Counselling-guidance services, skill development training etc. will be delivered to enable them lead an independent life. In the reporting period, 75 children are benefitted through the project. Though the centre was closed due to COVID-19 but the service are being provided at the door step of children by the Therapists.
- During the reported period, **Project UTKARSH** has been introduced with an objective to address social challenges such as poverty & unemployment in the districts, through the provision of quality education and skills to youth(girls) especially those who are among poor, backward, SC, ST, Differently-abled, Women, Left Wing Extremist Affected (LWEA) and other disadvantaged sections. The Project Utkarsh enhancing the aspirations of 300 disadvantaged students (200 girls & 100 boys) for IAS, IPS, State Civil & Police Services and other Central, State Government and Corporate jobs through free quality coaching.

- Financial support extended to District Admin for transformation of 15 schools near the plant vicinity to enable schools to provide appropriate creative, technological, physiological and psycho-social support right from the early formative years to help children blossom and achieve their full potential as they grow under Mo School Abhiyan.
- Necessary support was extended to 10 Anganwadi Centers for creating as **Model Anganwadi** in the district. Under the initiative, child friendly bench desk and other required support were provided where 227 preschool children were benefitted under the project.

GENERATING SUSTAINABLE LIVELIHOOD OPTIONS FOR THE COMMUNITY & WOMEN'S EMPOWERMENT:

- Women Empowerment and skill building programme is a flagship project of JSPL Foundation at Angul which is also known as Jan Jeevika Kendra (JJK). Presently 425 women are associated with the different income generating activities namely herbal body care product making, Food processing & preservation, diversified Jute item production, incense stick making, Tailoring, Phenyle making, and sanitary napkin production vegetable cultivation, mushroom cultivation, Bee keeping, Community diary, vermi composting, azolla farming etc. Women from the periphery villages after completing their household chores come to the centre and work for their livelihood which not only add to their income but also boost their self-confidence and social status.
- Under the skill building programme the rural women from plant vicinity are being regularly imparted with different training for their skill enhancement and production of qualitative and variety products. Under this initiative 2925 women are got benefitted.
- Around 45 artisans are engaged in making terracotta products. These women are working on electric wheel and are provided value added training for making household decorative items which has high demand in the market. With the intervention of JSPL Foundation, the artisans are registered at DIC and they have their registration Number, Craftsmanship certificate and all are insured under the Government scheme. The artisans also participate in the different craft fairs and exhibit their products. These artisans are engaged in Kudua making (Earthen pots) for preparation of Prasad for Lord Jagannath in Temples and terracotta items.
- “Sugandhi”- incense stick manufacturing unit – a joint initiative by ORMAS, JSPL and ITC Ltd in Public Private Partnership mode.
- The Milk Collection cum Distribution Centre - is running successfully by a farmers group. This unit is connected to 4 milk clusters comprising of 200 farmers from the nearby villages. The average milk collection is 18800 litres per month which is being marketed inside JSPL Township and is generating an income of Rs 4154 per month per farmer's family.
- **Strengthening of Existing Technology and capacity building initiative in Agriculture:** To strengthen the agriculture output and to increase the production, the farmers are being exposed and trained on different scientific technology through different agencies like Krishi Vigyan Kendra (KVK) and ATMA. In this reporting period hand holding support given to 3692 farmers for cultivating different crops which are fetching them an additional income of Rs.15000/- to Rs. 25000/- per person per year.

SPORTS, YOUTH & CULTURAL BONDING:

- Due to COVID-19 Pandemic sports activities were not undertaken during the reporting year. However, Youth groups and village sports team members were sensitised by our Field Animator on COVID-19 Prevention.
- Regular fitness exercises on open fields being conducted. Gym equipment were provided to the villagers where 2250 youths are being benefitted.

NATURAL RESOURCE MANAGEMENT:

- Two Micro-Watershed Management Projects are being supported by JSPL Foundation in partnership with the National Bank for Agriculture & Rural Development (NABARD) in order to address the issues of soil erosion, deforestation, sedimentation of water harvesting structures etc. through low-cost and locally available technologies like in-situ soil and moisture conservation measures, afforestation etc. and through a participatory approach that seeks to secure close involvement of the user-communities. The onus of implementing the project lies with the Village Watershed Committees which is working in close guidance of the Project Facilitating Agency, Maulana Azad Samajik Evam Shaikshnik Parishad (MASSP). The project is covering 5 villages namely Tubey, Maratira, Kulei, Derjang&Madhiamunda. 9000 villagers are being benefitted through implementation of an integrated programme on soil, water & biomass conservation, ground water recharge and enhancing agricultural production and productivity on a sustainable basis. Under the project 9000 villagers are being benefitted. During the reported period following activities undertaken
 - Aarahar on Firm bond introduced with integration of SRI Paddy of 30 hectors land area in collaboration with District Agricultural Deptt.
 - Handholding support provided for 30 Acres integrated Farming of sweet corn and sun flower in 9 villages in collaboration with Dist. Agriculture Officer.
 - Extension of lemon grass field up to 10 acre to develop nursery by small marginal 50 farmer in collaboration with Green Essence and Horticulture Deptt.
 - Collaboration with DMF for Aroma plantation
 - Increase of Vegetable, pulses, SRI Paddy 1.5 times in both watershed area of Tubey and Derjanga.
 - Capacity building of Farmers done through SDP Project.
 - Business Plan has been developed up to Farmers Producer Organization registered under company act. They have applied for seed on fertilizer trading license with agriculture Deptt.
 - Two numbers of Paddy line Transplanter machines have been provided to two Farmers Producers Company registered under NABARD supported project in two Microwatershed development project area, i.e. Kalapata FPC at Tubey & Pitabali FPC at Derjang under government subsidy scheme to promote farm mechanisation to reduce the cost of production and increase the overall income of farmers.
 - Theme based day like World Water Day, Earth Day has been observed to sensitised the farmers on the Natural resource Managements.
 - Training on Scientific Agriculture techniques has been provided to the FPC members and farmers.
 - Project Monitoring Review Committee meeting of both the FPC has been done. Seed, fertiliser and pesticides retailers licence have been procured by the FPC from government and inputs have been provided to the farmers through these FPC in comparatively low rate to the open market

- Capacity building programme have been carried out with the help of Govt Agriculture department on biological pest management.
- One milk cluster has been formed in watershed village Maratira. 45 no. Farmers are associated. Marketing facility has been provided to the farmers for milk and milk products inside JSPL township. Capacity building, equipment support and support for Azolla and Green fodder cultivation have been provided to the farmers for sustainable supplementary income.

AWARDS & RECOGNITIONS DURING 2021-22 (Till Sep'21):

- Mahatma Award by Live Week USA for Multidimensional initiatives to mitigate COVID- 19 induced human miseries across India
- Top 10 Impact Leaders of india for Contribution in building a Resilient India during COVID- 19 Pandemic.
- Best CSR practices Award on Women Empowerment of Odisha CSR Forum.

Expenditure (in Crore Rupees) under Corporate Social Responsibility, JSPL Angul

Sl. No.	Development Initiatives	Expenditure (in Crore Rupees) under CSR	
		2020-21 (Apr 20-Sep'21)	Cumulative 2005 - till 30 th Sep' 2021
1	Community Health Care	3.18	12.19
2	Education and Skill Building & Employability	1.87	23.00
3	Rural Development	0.03	27.46
4	Sustainable Livelihood Activities and Natural Resource Management	0.24	6.98
5	Sports,Art & Culture	0.05	1.26
6	Policy (Calamity Management & Social Welfare and Others)	0.59	30.07
	TOTAL	5.96	100.96

Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2108030066 Sample Reg. Date :03-08-2021 Report Date :13-08-2021 Report No. :ICE-2108130341 NABL ULR No. :TC592621000008591F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: Environment (Protection) Amendment Rules, 2015
General Information : Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: Power Plant Unit 6 : 135 MW : 93 MW : Coal - 65 ton/hr & Gas - 35000 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit 6 ESP : M.S. : 220 : 3.75 : 24 : To assess the pollution load : ESP : Working : Nil
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 135 : 29.56 : 821888.70 : 39 : 728

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			


Saurabh Sharma
13-08-2021
Reviewer


13-08-2021
PremKumar
[Authorized Signatory]

Disclaimer :

- Sample (s) not drawn by us unless otherwise stated.
- Total Liability of this Laboratory is limited to the Invoiced amount.
- Test certificates in full or parts shall not be used for promotional or publicity purpose.
- If sample is not consumed during analysis, it will be stored as per required storage condition.
- The results relate to the item tested.

Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul		Sample Reg. No. :E01-2108030066 Sample Reg. Date :03-08-2021 Report Date :13-08-2021 Report No. :ICE-2108130341 NABL ULR No. :TC592621000008591F Customer Ref. No.: WO Letter Dated :03.04.2021		
a.	Mercury(As Hg),mg/Nm3	Method of Air sampling & Analysis(Method No. 822)	0.03 Max.	BLQ(LOQ:0.010)

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Sample collected by lab rep. on dated 27.07.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
13-08-2021
Reviewer



13-08-2021
PremKumar
[Authorized Signatory]

Disclaimer :

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- If sample is not consumed during analysis, it will be stored as per required storage condition.
- The results relate to the item tested.

Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060126 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140229 NABL ULR No. :TC592621000009990F Customer Ref. No.: WO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 27-08-2021 : 16:31 hrs to 16:55 hrs : Power Plant Unit-1 : 135 MW : 98 MW : Coal-65 TPH & Gas-25000 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit-1, ESP : M.S. : 220 : 3.75 : 24 : To assess the pollution load : ESP : Working : Nil : 128 : 29.86 : 843562.39 : 36 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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- The results relate to the item tested.

Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul		Sample Reg. No. :E01-2109060126 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140229 NABL ULR No. :TC592621000009990F Customer Ref. No.: WO Letter Dated :03.04.2021		
a.	Mercury(As Hg),mg/Nm ³	Method of Air sampling & Analysis(Method No. 822)	Max. 0.03	BLQ(LOQ:0.01)

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Sample collected by lab rep. on dated 27.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
14-09-2021
Reviewer



14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109060123 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140226 NABL ULR No. :TC592621000009988F Customer Ref. No.: WO Letter Dated :03.04.2021
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Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 27-08-2021 : 12:10 hrs to 12:37 hrs : Power Plant Unit-6 : 135 MW : 93 MW : Coal- 65 Ton/hr & Gas- 35000 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit-6, ESP : M.S. : 220 : 3.75 : 27 : To assess the pollution load : ESP : Working : Nil : 130 : 25.60 : 719625.75 : 37 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1.	General Parameters			

Saurabh Sharma
14-09-2021
Reviewer

14-09-2021
PremKumar
[Authorized Signatory]

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- The results relate to the item tested.

Test Report

Document QF : 2501
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Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul		Sample Reg. No. :E01-2109060123 Sample Reg. Date :06-09-2021 Report Date :14-09-2021 Report No. :ICE-2109140226 NABL ULR No. :TC592621000009988F Customer Ref. No.: WO Letter Dated :03.04.2021		
a.	Mercury(As Hg),mg/Nm3	Method of Air sampling & Analysis(Method No. 822)	Max. 0.03	BLQ(LOQ:0.01)

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Sample collected by lab rep. on dated 27.08.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*****End Of Report*****



Saurabh Sharma
14-09-2021
Reviewer



14-09-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291096 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060245 NABL ULR No. :TC592621000011412F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 23-09-2021 : 11:35 hrs to 12:07 hrs : Power Plant Unit-3 : 135 MW : 115 MW : Coal- 80 TPH & Coke Oven Gas- 8000 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit-3, ESP : M.S. : 220 : 3.75 : 32 : To assess the pollution load : ESP : Working : - : 126 : 21.83 : 618948.94 : 36 : 726

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			


Saurabh Sharma
06-10-2021
Reviewer


06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291096 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060245 NABL ULR No. :TC592621000011412F Customer Ref. No. :PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Mercury(As Hg),mg/Nm ³	Method of Air sampling & Analysis(Method No. 822)	Max. 0.03	BLQ(LOQ:0.01)

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 23.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*******End Of Report*******



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501

Page 1 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291098 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060247 NABL ULR No. :TC592621000011413F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

Test Report as per :	: EPA Act 1986/PCLS/2010
General Information : Date of Monitoring Time of Monitoring Name of the emission source monitored (a) Rated Capacity (b) Capacity on sampling day (c) Type of fuel used & its consumption (d) Normal operating schedule 2. Stack Identification 3.Type of Stack/Duct 4.Stack Height from Ground Level(m) Diameter of Stack (mtr) (6) Sampling Duration(minutes) Purpose of Monitoring (8) Air Pollution control measure (a) Status (9) Fugitive Emission,if any	: 23-09-2021 : 12:55 hrs to 13:31 hrs : Power Plant Unit-4 : 135 MW : 85 MW : Coal- 61 TPH & Coke Oven Gas- 6800 Nm ³ /hr : 24 hrs : Stack attached to Power Plant Unit-4, ESP : M.S. : 220 : 3.75 : 36 : To assess the pollution load : ESP : Working : -
Observations : Flue Gas Temperature, °C,Avg. Flue Gas Velocity(m/s),Avg. Volumetric Flow Rate(Nm ³ /hr.) Ambient Air Temperature, °C Barometric Pressure, mmHg	: 130 : 24.75 : 695731.93 : 36 : 727

S.No.	Parameters	Method	Specification	Result
	Discipline : Chemical			

Saurabh Sharma
06-10-2021
Reviewer

06-10-2021
PremKumar
[Authorized Signatory]

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Test Report

Document QF : 2501
Page 2 of 2

Issued To Jindal Steel & Power Limited SH-63, Chendipada Road, Jindal Nagar, Angul Angul	Sample Reg. No. :E01-2109291098 Sample Reg. Date :29-09-2021 Report Date :06-10-2021 Report No. :ICE-2110060247 NABL ULR No. :TC592621000011413F Customer Ref. No.: PO Letter Dated :03.04.2021
--	--

	Group : Atmospheric Pollution			
1.	General Parameters			
a.	Mercury(As Hg),mg/Nm ³	Method of Air sampling & Analysis(Method No. 822)	Max. 0.03	BLQ(LOQ:0.01)

'#' represents Customer Defined Fields

NOTE : NA- Not Applicable, BLQ- Below limit of Quantification, LOQ- Limit of Quantification, Requirements as per EPA Act 1986/PCLS/2010 , Sample collected by lab rep. on dated 23.09.2021, Sampling Procedure - SOP/ITC/EW/056

REMARKS :N/A

*******End Of Report*******



Saurabh Sharma
06-10-2021
Reviewer



06-10-2021
PremKumar
[Authorized Signatory]

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OFFICE OF THE REGIONAL OFFICER
STATE POLLUTION CONTROL BOARD, ODISHA
 (DEPARTMENT OF FOREST & ENVIRONMENT, GOVT. OF ODISHA)
 Plot No. S-3/3, Industrial Estate, Hakimpada, Angul-759143

"By Registered Post"

CONSENT ORDER

No. 1985 / RAA/ROSPCB/AGL/24/2021-22

Date: 29.06.2021

CONSENT ORDER NO.898/2021-22/RO-SPCB/Angul (APC & WPC)

Sub: Consent for discharge of sewage and trade effluent under section 25/26 of Water (PCP) Act, 1974 and for existing/new operation of the plant under section 21 of Air (PCP) Act, 1981.

Ref: Your online Consent to Operate Application No. 3659373 received in complete form on 24.06.2021.

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to:

Name of the Unit: M/s Jindal Steel and Power Ltd

Name of the Occupier & Designation: Sri Hridayeshwar Jha, Director

Address: Plot No. 3/1011, Khata No- 115/181 over an area 0.65 Acres (out of 4.32 Acres), Plot No. 2/1012, Khata No- 115/181 over an area 5.77Acre (out of 12.48 Acres), Plot No. 3/978, Khata No- 115/181 over an area 2.37Acre (out of 5 Acres), Total area 8.79 Acres Mouza: Kaliakatta,, Tehsil: Chhendipada Dist- Angul

This consent order is valid for the period up to 31.03.2022.

This consent order is valid for the product quantity, specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.

A. Details of products manufactured:

Sl. No.	Product	Area
1.	Filling of low lying area with Fly Ash (Quantity 3.46 Lakh Metric Tonne)	8.79 Acres





B. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr.	Prescribed standard			
				pH	TSS (mg/l)	BOD (mg/l)	Oil & Grease (mg/l)

C. Emission permitted through the following stack subject to the prescribed standard.

Chimney Stack No.	Description of stack	Stack height (m)	Quantity of emission	Prescribed standard

D. Disposal of solid waste permitted in the following manner

Sl. No.	Type of Solid waste	Quantity generated (TPM)	Quantity to be reused on site (TPM)	Quantity to be reused off site (TPM)	Quantity disposed off (TPM)	Description of disposal site.

E. GENERAL CONDITIONS FOR ALL UNITS

- The consent is given by the Board in consideration of the particulars given in the application. Any change of alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 f the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations deemed fit for the purpose of the Acts.
- The industry would immediately submit revised application or consent to operate to the Board in the event of any change in the quantity and quality of raw material/and products/manufacturing process or quantity / quality of the effluent rate of emission/air pollution control equipment/system etc.
- The applicant shall not change or alter either the quality or quantity of the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
- The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
- The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
- The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
- This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
- The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
- An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
- The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system/air pollution control system/stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water/Air.
- Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been tapped by the consumer for utilization for any purposes whatsoever.
- Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
 - Industrial cooling, spraying in mine pits or boiler feed.
 - Domestic purpose
 - Process
- The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/ bathing.
- Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.



15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
21. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.
22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples/stack monitoring/inspection.
25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
27. The satisfaction the liquid effluent arising out of the operation of the air pollution control equipment shall treated in the manner and to ion of standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
28. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
29. There shall not be any fugitive or episodal discharge from the premises.
30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge/emission shall be brought to the notice of the Board within 24 hours of occurrence.
31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and/or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax/speed post within 24 hours of its occurrence.
33. The industry has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries of industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as no to cause fugitive emission, dust problems through leaching etc, of any kind.
35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by:
 - i. Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
 - ii. Controlled incineration, wherever possible in case of combustible organic material.
 - iii. Composting, in case of bio-degradable material.
36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Latter of authorization shall be obtained for handling and disposal of hazardous waste.
37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.





40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981.
42. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
43. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/stipulate additional conditions as deemed appropriate.

F. SPECIAL CONDITIONS:

1. The unit shall submit the compliance report regarding the filling of fly ash and adequate air pollution control measures should be adopted during disposal of ash.
2. Reclamation of low lying area shall be carried out as per the guideline prepared by the State Pollution Control Board for the purpose. (copy enclosed)
3. The unit shall dispose only ash for filling the low lying area. Under no circumstances, the industry shall dispose any other industrial solid waste in the low lying area other than ash without prior permission of the Board.
4. Consent to operate is subject to availability of all other statutory clearances required under relevant Acts / Rules and fulfillment of required procedural formalities.
5. Under no circumstances the low lying area shall be filled up to a level higher than the surrounding area. The ash to be transported for filling of low lying area shall be adequately moistened with water, so that minimum 15% moisture is maintained at the destination.
6. Industry shall protect the water stream/body, if any, flowing adjacent to the site. Protective earthen embankment shall be provided along the stream. Filling of ash shall not obstruct the natural flow of water.
7. The ash shall be dumped into low lying area and spread uniformly by engaging earth moving equipment. The spreading of ash shall be done in layers and compacted followed by concurrent top soil capping before rainy season, so that there shall not be any chance of mixing of the fly ash in nearby water body through rain water.
8. The Industry shall develop the approach road and shall provide adequate water spraying arrangement on the roads when ash is taken from the silo/plant to suppress any fugitive dust generated during working period.
9. All the tippers/trucks responsible for carrying the fly ash shall be covered with tarpaulin so that there shall not be any spillage on the way.
10. In case any accidental spillage on the way, while transporting the fly ash the company shall ensure that spilled fly ash dust shall be transported back to the disposal site as quick as possible.
11. Protective action to be ensured if the ash to be disposed at immediate vicinity of NH/SH.
12. The industry has to provide dust suppression like water sprinkling in and around the dump site. During summer extra care shall be taken to control fugitive dust.
13. For reclamation of land, irrespective of size located within administrative limit of any Municipality / Corporation or if the transportation route passes through its administrative limit, extra care to ensure non spillage of ash and non-congestion of traffic need to be exercised to prevent any pollution during transportation of fly ash.
14. **The following two condition are applicable if the permeability of the site is $> 10^{-7}$ cm/sec :**
15. If the permeability is more than 10^{-7} cm/sec, the TPP shall provide appropriate lining as mentioned in the guideline at the base layer at the low lying area in order to prevent leaching and risk of ground water contamination.
16. Commencement of fly ash filling shall be made after provision of the lining is verified by the Pollution Control Board's Official and on obtaining necessary permission in this regard.





17. The environmental quality monitoring of air, surface and ground water shall be carried out every month at the boundary of the disposal area for the following parameters and the monitoring report shall be submitted to the Board every quarter.
- Ambient Air - PM₁₀, PM_{2.5}
 - Surface runoff - SS, F, Cd, As
 - Soil - SAR
18. Water quality monitoring shall be done from start of the work till six months beyond completion of work. Air monitoring shall be done till completion of the reclamation work.
19. The area shall be properly fenced to prevent any entry of cattle / Livestock inside the quarry area.
20. After complete reclaiming the site, sign board shall be put up showing that the land was reclaimed by filling low lying area.
21. Attempt shall be made to avoid any kind of public nuisance due to proposed activities.
22. The industry shall submit a report on the utilization of the land annually and all the pollution control measures are being taken properly, the emissions and effluent are conforming to the prescribed standard, and all the consent have been complied with.
23. Public complaint, if any found to be genuine consent to operate order may be viewed seriously and future action may be initiated on the unit as per law.
24. The industry shall abide by all the provisions of E (P) Act 1986 and Rules framed there under.
25. On completion of the reclamation, the TPP shall submit a certificate to the effect that all the above stipulated conditions have been duly complied.
26. The Board may impose further condition or modify the conditions as stipulated in this order and may revoke this order in case the stipulated conditions are not implemented and / or information is found to have been suppressed / wrongly furnished in the application form. If it is found that the industry is operated without adequate pollution control measures and without consent to operate from the Board direction for closure shall be issued under section 31(A) of Air (PCP) Act. 1981 and / or under section 33(A) of Water (PCP) Act, 1974 as the case may be without any further notice.

The occupier must comply with the conditions stipulated in section A,B,C,D,E & F to keep this consent order valid.

To

Sri Hridayeshwar Jha, Director
M/s Jindal Steel and Power Ltd
At-Chhendipada Road, SH-53 At/Po- Jindal Nagar
Dist- Angul, Odisha, Pin-759111

Memo No. 1986 CV/

Dt. 29.06.21

Copy forwarded to:

- The Member Secretary, S.P.C. Board, Odisha, Bhubaneswar
- The Collector and Dist. Magistrate, Angul.
- The AVP (EMD) M/s JSPL, Angul
- Guard file, Regional Office, SPC Board, Angul, Odisha.

Mallik
29-06-21

REGIONAL OFFICER
Regional Officer
State Pollution Control Board
ANGUL

Mallik
29-06-21

REGIONAL OFFICER
Regional Officer
State Pollution Control Board
ANGUL



General Standards for discharge of environment pollutant Part-A: Effluents

Sl. No	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Coastal Areas
1	2	3			
		(a)	(b)	(c)	(d)
1	Colour & odour	Colourless/ Odourless as far as practicable	-----	See 6 of Annex-1	See 6 of Annex-1
2	Suspended Solids (mg/l)	100	500	200	a. For process wastewater-100 b. For cooling water effluent 10% above total suspended matter of influent.
3	Particular size of SS	Shall pass 850	-----	-----	-----
4	-----	-----	-----	-----	-----
5	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6	Temperature	Shall not exceed 5° C above the receiving water temperature	-----	-----	Shall not exceed 5° C above the receiving water temperature.
7	Oil & Grease mg/l max.	10	20	10	20
8	Total residual chlorine	1.0	-----	-----	1.0
9	Ammonical nitrogen (as N) mg/l max.	50	50	-----	50
10	Total Kjeldahl nitrogen (as NH ₃) mg/l max.	100	-----	-----	100
11	Free Ammonia (as NH ₃) mg/l max.	5.0	-----	-----	5.0
12	Biochemical Oxygen Demand (3 days at 27°C) mg/l max.	30	350	100	100
13	Chemical Oxygen Demand, mg/l max.	250	-----	-----	250
14	Arsenic (as As) mg/l max.	0.2	0.2	0.2	0.2
15	Mercury (as Hg) mg/l max.	0.01	0.01	-----	0.001
16	Lead (as Pb) mg/l max.	01.	1.0	-----	2.0
17	Cadmium (as Cd) mg/l max.	-----	-----	-----	-----
18	Hexavalent Chromium (as Cr+6) mg/l max.	0.1	2.0	-----	1.0
19	Total Chromium (as Cr) mg/l max.	2.0	2.0	-----	2.0
20	Copper (as Cu) mg/l max.	3.0	3.0	-----	3.0
21	Zinc (as Zn) mg/l max.	5.0	15	-----	15
22	Selenium (as Se) mg/l max.	0.05	0.05	-----	0.05
23	Nickel (as Ni) mg/l max.	3.0	3.0	-----	5.0
24	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25	Fluoride (as F) mg/l max.	2.0	15	-----	15
26	Dissolved Phosphates (as P) mg/l max.	5.0	-----	-----	-----
27	Sulphide (as S) mg/l max.	2.0	-----	-----	5.0
28	Phenolic compounds (as C ₆ H ₅ OH) mg/l max.	1.0	5.0	-----	5.0
29	Radioactive Materials a. Alpha emitter micro curie/ml b. Beta emitter microcurie/ml.	10 ⁻⁷ 10 ⁻⁶	10 ⁻⁷ 10 ⁻⁶	10 ⁻⁵ 10 ⁻⁷	10 ⁻⁷ 10 ⁻⁶
30	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31	Manganese (as Mn)	2 mg/l	2 mg/l	-----	2 mg/l
32	Iron (as Fe)	3 mg/l	3 mg/l	-----	3 mg/l
33	Vanadium (as V)	0.2 mg/l	0.2 mg/l	-----	0.2 mg/l
34	Nitrate Nitrogen	10 mg/l	-----	-----	20 mg/l



CONSENT ORDER

NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	50 80	20 80	-Improved west and Gaeke - Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO ₂), $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3.	Particulate Matter (size less than 10 μm) or PM ₁₀ , $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	60 100	60 100	-Gravimetric - TOEM - Beta Attenuation
4.	Particulate Matter (size less than 2.5 μm) or PM _{2.5} , $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	40 60	40 60	-Gravimetric - TOEM - Beta Attenuation
5.	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	8 Hours ** 1 Hours **	100 180	100 180	- UV Photometric - Chemiluminescence - Chemical Method
6.	Lead (Pb), $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	0.50 1.0	0.50 1.0	-AAS/ICP method after sampling on EMP 2000 or equivalent filter paper. - ED-XRF using Teflon filter
7.	Carbon Monoxide (CO), mg/m^3	8 Hours ** 1 Hours **	02 04	02 04	- Non Dispersive Infra Red (NDIR) Spectroscopy
8.	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	Annual* 24 Hours**	100 400	100 400	-Chemiluminescence - Indophenol Blue Method
9.	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	Annual *	05	05	-Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)-Particulate phase only, ng/m^3	Annual*	01	01	-Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m^3	Annual*	06	06	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni), ng/m^3	Annual*	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

** Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.