JINDAL

JINDAL SAW LTD.

Lr.No: JSAW/ENV/APPCB/ES/2024-25
Date: 26.09.2024

To,
The Environmental Engineer,
Andhra Pradesh Pollution Control Board,
Regional Office,
Ananthapuramu,
Andhra Pradesh.

Dear Sir,

Sub: Submission of Environment Statement (FORM-V) FY 2023 to 2024 – Reg,

With Reference to the above subject, we are submitting herewith the Environment Statement Report **(FORM-V)** three copies in respect of our unit **M/s. Jindal Saw Limited**, Sy.No.41 to 49, Haresamudram (V), Bommanahal (M), Ananthapuramu (Dt), Andhra Pradesh for the period of **April-2023 to March-2024.**

Kindly acknowledge the receipt of the same.

Thanking You,

Your Faithfully,

For **Jindal Saw Limited**

27/09/24

Authorized Signatory

JINDAL SAW LTD.-AP-01-HARESAMUDRAM

A.P. Pollution Control Board, Regional Office ★ ANANTAPURAM Dt: 27/09/2024

JINDAL SAW LIMITED

ENVIRONMENT STATEMENT (FORM-V)
FY 2023 - 2024

Name of the Company	**Jindal Saw Limited (JSAW), Haresamudram Village, Bommanahal Mandal, Post Office Bommanahal, Anantapur District, Andhra Pradesh - 515871, India.**
Order No	**1857856/APPCB/KNL/ATP/HO/CFO&HWA/2022 Dated: 17/10/2022 and Name Transfer 1857856/APPCB/KNL/ATP/HO/CFO&HWA/2023 Dated: 20/12/2023**
EC Compliance Status for the Period	**April- 2023 to March-2024**

Submitted By:
Jindal Saw Limited (JSAW),
Haresamudram Village, Bommanahal Mandal, Post Office Bommanahal, Anantapur District, Andhra Pradesh - 515871, India.

Point wise Compliance to the Environmental Clearance

S.No	Conditions	Compliance
A	**Specific Conditions**	
I	Electrostatic precipitator (ESP) , Dust catcher, venturi scrubbers, Bag filters etc shall be provided to keep the emission levels below 50mg/Nm^3 by installing energy efficient	ESP's installed for 30 MW Power plant and Sinter Plant to achieve stack particulate matter emissions below 50 mg/Nm3. The blast furnace is being modified by incorporating more energy efficient technology like bell less top, stave cooling, coal injection etc. This will save substantial energy and contribute in bringing down the emission levels. The Stack monitoring results of CPP, Sinter plant and BF is enclosed as **Annexure-1.**
II	The National ambient air quality standards issued by the ministry vide G.S.R No:826(E) dated(E) 16th November,2009 should be followed.	Ambient Air Quality is being monitored periodically at four AAQ locations namely at, Plant Main gate, Bommanahal Village, Kuruvalli Village, and Haresamudram Village. The Monitored results are (enclosed as **Annexure-2),** well below the respective air pollutants standards as specified in National Ambient Air Quality Standards G.S.R. No. 826(E) dated 16th November, 2009 (NAAQ 2009) and the results are regularly submitted to Andhra Pradesh Pollution Control Board (APPCB).
III	Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the ministry vide G.S.R 414(E) dated 30th May, 2008 and regularly mentioned. Guidelines / code of practice issued by the CPCB should be followed.	Fugitive emissions from different sources are controlled and mentioned below: o Raw material conveyors to Sinter Plant and Blast Furnace are covered. o Dust Extraction with bag filters are installed in Sinter Plant Areas like, proportioning Stations, Sinter Breaker and Screen House. o Dust Extraction with bag filters are installed in Blast Furnace Stock House Screen areas. o Dust Extraction with bag filters are installed in other process areas like Induction Furnaces, Annealing, and Zinc Spray unit. o Water sprinkling through tankers is regularly undertaken on plant roads at a frequency of twice per day to control

		fugitive dust. o Fixed / movable water sprinklers are installed in raw handling area to control fugitive dust. o Greenbelt / green cover has been planted within and all around the plant at strategic location to control fugitive emissions. Work zone monitoring is periodically undertaken in different units of plant and the results are regularly submitted to APPCB. The work zone fugitive PM levels are below 2000µg/m^3 (as specified in G.S.R 414(E) dated 30th May, 2008). Monitoring Reports are enclosed as **Annexure-3.**
IV	The total water requirement of the proposed expansion should not exceed 3590 m^3 /day and necessary permission from competent authority shall be obtained for drawl of water. The water consumption shall not exceed as per prescribed standards for the steel plants.	The water consumption is less than 3590 m3/day. The Water balance diagram is enclosed as **Annexure-4.** Water drawl permission as obtained from Irrigation & Command Area Development Department is enclosed in **Annexure-5.**
V	Zero effluents discharge should be strictly followed and no waste water should be discharged outside the premises.	No process/ waste water is discharged to outside the plant and plant is operated under Zero effluents discharge. Total process waste water is recycled / re-used in the plant through water re-circulating circuit installed at various locations
VI	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.	We are having a reservoir where rain water is collected. We will make further use of rain water by incorporating suitable structure for rain water harvesting.
VII	All the blast furnace(BF) slag shall be granulated and provided to cement manufacturers for further utilization. Accretions shall also be properly utilised.	Blast furnace slag is being sold to the cement manufactures.
VIII	Proper utilisation of fly ash should be ensured as per " Fly ash notification" 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilisation and "Memorandum of Understanding " should be submitted to Ministry's regional office at Bengaluru.	Fly ash is being sold to Cement manufactures.

IX	Prior permission and recommendations of the state forest department regarding the impact of the proposed plant Mincheri R.F should be obtained and recommendation if any should be implemented in a time bound manner.	We have obtained clearance from the forest department and the same enclosed as **Annexure-6.**
X	As proposed green belt shall be developed in 47.14 acres out of total 142.94 acres as per CPCB guidelines in consultation with local DFO to	Complying. We have been acquired the plant in Nov-2022 only. When the project was acquired, total existing Green belt / green cover was about **28.46 acres.** After started the operation in Nov. 2022 and since then green belt is being developed gradually and about 5500 nos saplings have been planted in an area of 4.3 acres. Making total green belt area to about **32.76 acres**. The Status of Existing green belt is enclosed as **Annexure-7.** It has been planned that green belt / green cover will be developed in more than 33% area of the project site. A total of about **47.25 acres** of green belt will be developed. The layout drawing showing designated / proposed greenbelt area enclosed as **Annexure-8.**
XI	All the recommendations made in the charter of corporate responsibility for environmental protection(CREP) for steel plants should be implemented.	Noted. Enclosed in **Annexure-9.**
XII	All the commitments made to the public during the public hearing / public consultation meeting held on 3rd November 2010 should be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the ministry's regional office at Bengaluru.	The project was given Environmental Clearance from MoEFCC vide F. No. J-llOll/125/2010-IA-II (I) dated 02.06.2011. For which the Public Hearing / Public Consultation was held on 03.11.2010. The project was under shut down for five years since 2017 and JSAW acquired the project in 2022 from NCLT and re-started the plant operation since Nov. 2022. During Public Hearing, very few specific requirements were demanded. However, public hearing points is being taken care by present management of Jindal Saw Limited (JSAW) such as : • Construction of boundary wall – being

		constructed. • No dumping the waste outside the plant premises and the solid waste is sold (Fly ash & granulated slag) to cement manufacturers on regular basis. • Infrastructure development – being undertaken. • Green belt development – being undertaken. • Strengthen the control measures of pollution control measures and monitoring facilities – already undertaken. • Strengthen the water recycling / reuse system within unit to ensure zero discharge from plant - implemented. • Priority is being given to local employment direct & indirect – being implemented. CSR activities are being taken care by JSW management in surrounding area as mentioned under **point number XIII.**
XIII	At least 5% of the total cost of the project shall be earmarked towards the enterprise social commitment based on public hearing & social responsibility and item wise details along with time bound action plan should be prepared and submitted to the ministry's regional office at Bengaluru. Implementation of such programme shall be ensured accordingly in a time bound manner.	As the project was taken over by JSAW in 2022 from NCLT provision. The following activities are being taken under by JSAW management: • Provided drinking water in 3 nearby villages with a cost of **Rs 10 lakhs** • Distributed LED lights for street in nearby villages with a cost of **Rs. 2,62,500 lakhs.** • Cement concrete roads (CC Road) proposed in nearby village with a cost of **Rs 10 lakhs** JSAW is committed to develop harmony & eco - friendly and provide pollution free environment in surrounding plant area.
XIV	The company shall provide housing for construction labour within the site with all the necessary infrastructure and facilities such as fuel for cooking , mobile toilets ,mobile STP, safe drinking water , medical health cares, crèche etc., the housing may be in the temporary structure to removed after the completion of the project.	**Complied.** We have provided housing for construction labour within the site premises and necessary infrastructure facilities also taken care. We have appointed medical officer for our existing employees on regular basis. For construction labour also we are extending doctor facility on their health requirements.

XV	At any time, the power generation from the Captive Power plant shall not exceed 26.43 MW.	Noted and being complied
XVI	In case source of coal supply is to be changed at a later stage (now imported coal from Indonesia) the project proponent shall intimated the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change.	The project as of now is using imported coal. MoEFCC will be intimated (with necessary requisite documents) well in advance for concurrence for allowing the change of coal source. However, under the modernisation-cum-expansion plan the project envisages to replace the imported coal with indigenous coal, for which due environmental clearance will be taken from MoEFCC.
XVII	High efficiency ESP shall be installed to control particulate emission below 50 mg/Nm3 and emission shall be dispersed through stack of adequate height.	High efficient ESPs are already implemented in the project and the process particulate emissions are regularly being maintained under 50mg/Nm3.
XVIII	Low NOx burners shall be installed to Control NOx emission from boilers.	The Thermal Power Plant is provided with Circulating Fluidized Bed Combustion (CFBC) Boiler in which the NOx generation is very low. This is basically due to the fact that the combustion temperature in a CFBC boiler (800 – 900ºC) is significantly controlled as compared to Atmospheric Fluidized Bed Combustion (AFBC) Boiler and lower than in Pulverised Coal (PC) Combustion Boiler (1300–1700ºC), which results in considerably reduced NOx formation.
XIX	A detailed study on chemical composition of coal used particularly heavy metal and radio activity contents shall be carried out through a reputed institute and report shall be submitted to Regional Office of the Ministry at Bangalore. Only after ascertaining its radioactive level shall fly ash be supplied for utilization in brick manufacturing.	After shut down in 2017 the project was referred to NCLT and the plant was under shut down for five years, JSL has taken over the project in 2022 and started its operation in Nov. 2022. The fly ash is being sent to cement manufacturers only. However, before selling fly-ash to brick manufacturers the chemical composition of fly-ash particularly heavy metal and radio activity contents will be determined from a reputed institute and the report will be submitted to Regional Office of the MoEFCC.
XX	Adequate dust extraction system such as Cyclones/ bag filters and water spray system in dusty areas such as in coal	Dust extraction (DE) system such as cyclones / bag filters and water spray system has been implemented in areas

	handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	like : • Coal handling and ash handling points, • Raw material transfer areas and Other vulnerable dusty areas like, raw material yard, roads etc.
XXI	Total water requirement for the proposed expansion should not exceed 4917 m3/day and necessary permission from the competent authority shall be obtained for drawl of water. The water consumption shall not exceed as per prescribed standards for the steel plants.	Please refer to reply under **Point No. iv under specific conditions.**
XXII	All other conditions stipulated in the environmental clearance even no. dated 2.6.2011 shall remain the same.	Noted and followed
XXIII	In case, there is a change in the scope of the project, a fresh environmental clearance shall be obtained.	Noted and will be complied with.
B	**General Conditions**	
I	The project authorities must strictly adhere to the stipulations made by the Andhra Pradesh pollution control board APPCB, and the state government.	Noted & agreed. Stipulations made by APPCB and the state government will be adhered. The Present status of the stipulated conditions mentioned in the consent order is enclosed as **Annexure-10.**
II	No further expansion or modifications in the plant shall be carried out without prior approval of the ministry of Environment and forest.	Noted & agreed.
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 APPCB including one ambient air quality monitoring station in downwind direction. Data on ambient air quality and stack emission should be regularly submitted to the ministry including its regional office at Bengaluru and APPCB / CPCB once in six months.	Three CAAQMS Station installed within the plant, through which continuous air quality is being monitored and the results are being displayed at main gate / public domain. Ambient Air Quality is being regularly monitored (as per NAAQS 2009. The results are observed within the NAAQS 2009. The monitoring reports have been submitted to the APPCB office on monthly basis.
IV	Industrial waste water shall be properly collected, treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. The treated waste water hall be used for plantation purpose.	No process/ waste water is discharged to outside the plant and plant is operated under Zero effluents discharge. Total process waste water is recycled / re-used in the plant through water re-circulating circuit installed at various locations

V	The overall noise levels in and around the plant area shall be kept within the standard (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosure etc., on all sources of noise generation. The ambient noise levels should confirm to the standards prescribed under EPA rules, 1989, viz 75dBA (daytime) and 70 dBA (night time)	Proper noise pollution control measures are implemented in the project to control noise levels. Acoustic hoods and enclosures are installed and noise levels are observed within the specific standard under EPA rules, 1986. Noise levels monitoring is being periodically conducted by Third party (NABL Certified) for work place noise as well as Ambient noise. The results are observed within the permissible limits and reports enclosed as **Annexure-11.**
VI	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per factories Act.	Noted, we are following the requirements as stipulated in the factory act. • The project is under re-developmental stage. However, pre-medical examination test for each & every worker before Joining have been done. • A full-fledged Occupational Health Centre with Medical Officer, Paramedical staffs, Ambulance and other necessary facilities have been developed.
VII	The company shall develop rain water harvesting structures to harvest the rain water for utilisation in lean season beside recharging the ground water table.	We are having a reservoir where rain water is collected. We will make further use of rain water by incorporating suitable structure for rain water harvesting.
VIII	The project proponent shall also comply with all the environmental protection measure and safeguards recommended in the EIA / EMP report. Further the company must undertake socio-economic development activities in the surrounding villages like community development programme, educational programme, drinking water supply and health care etc.	Noted. We have undertaken socio-economic development activities in the surrounding villages like Bommanahal and Haresamudram villages by providing drinking water facilities, LED Street lights etc.
IX	Requisite funds be earmarked towards the capital cost / annum for environmental protection measures and judiciously utilised to implement the condition stipulated by the ministry of environment and forest as well as state government. the funds so provided shall be diverted for any other purpose.	A total of **Rs 17.25 crores** has been earmarked separately as capital cost of pollution control measures and **Rs. 3.0 crores** as recurring cost per annum for pollution control measures. Besides the above, recently a cost of about **Rs 2.4 Crores** have been spent on for installation of CEMS and CAAQMS system
X	A copy of clearance letter shall be sent by proponent to concerned zilla parishad / municipal corporation, urban local body and local NGO , if any from whom suggestions / representations if any were received while processing the	The copies of the EC was submitted to local panchayats and also uploaded in JSAW website.

	proposal. The clearance letter shall also be put on the website of the company by the proponent.	
XI	The project proponent shall upload the status of compliance of the stipulated environment clearing conditions, including the result of mentioned data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of the MoF&CC, the respective zonal office of the CPCB and the APPCB. The criteria pollutant level namely SPM,RSPM,SO_2 , NO_x (ambient levels as well as stack emissions) or critical sectorial parameters, indicated for the projects shall be monitored and displayed at a convenient location near main gate of the company in the public domain.	Compliance report is uploaded in JSAW website and submitted to concerned authorities along with half yearly compliance report. Critical sectorial parameters like PM, SOx, NOx etc are being monitored. Additionally the monitored values are displayed through LED display board at company main gate.
XII	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including the status of monitored data (both in hard copies as well as by e-mail) to the regional office of the MoEF&CC at Bengaluru / CPCB /APPCB shall monitor the stipulated conditions.	Submitting the Six months Half Yearly compliance report regularly.
XIII	The environmental statement for each financial year ending 31st March in Form – V as is mandated to be submitted by project proponent to the concerned state pollution control board as prescribed under the environment(Protection) Rules 1986, as amended subsequently , shall also be put on website of the company along with status of compliance of environmental conditions and shall also be sent to the respective Regional office of the MoF&CC by e-mail.	Submitting the Environmental Statement in FORM-V regularly to the concerned authorities. Last submitted on 22.09.2023 and enclosed as **Annexure-12.**
XIV	The project proponent shall inform the public that the project has been accorded environmental clearance by the ministry and copies of the clearance letter are available with APPCB and may also be seen at website of the Ministry of environment and forest at http:/envfor.nic.in. this shall be advertised within seven days from date of issue of the clearance letter, at least in two local newspapers that we widely circulated in the region of which one shall be in vernacular language of the	Public notice has been published in Indian express, Hyderabad on 10-06-2011 and Varth (telugu) on 09-06-2011 Enclosed as **Annexure-13.**

	locality concerned and the copy of the same shall be forwarded to the regional office at Bengaluru.	
XV	Project authorities shall 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.	The project was given Environmental Clearance for expansion from MoEFCC vide F. No. J-llOll/125/2010-IA-II (I) dated 02.06.2011 and subsequently obtained amendment in EC vide F. No. J-llOll/125/2010-IA-II (I) dated 13.03.2014. The project after expansion was under shut down for five years since 2017 and JSL acquired the project in 2022 from NCLT and re-started the plant operation since Nov. 2022.
XVI	The Ministry may revoke or suspend the clearance, if implantation of any of the above condition is not satisfactory	Noted.
XVII	The Ministry reserves shall be right to stipulated additional conditions if found necessary, the company in a time bound manner shall implement these conditions.	Noted.
XVIII	The above conditions shall be enforced, inter-alia under the provisions of the Water (prevention & Control of pollution) Act, 1974, the Air (Prevention & pollution)Act, 1981, the Environment (Protection) Act, 1986, Hazardous wastes (Management , Handling & Trans-boundary Movement) Rules 2008 and The Public (Insurance) Liability Act, 1991 along with their amendment and rules.	Noted.

FORM-V
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2024

PART-A

(i)	Name and address of the owner/ occupier of the industry operation or process	Mr.H S Chaudhary M/s. JINDAL SAW LIMITED, Sy.No: 42 to 49, Haresamudram (V), Bommanhal (M), Anantapur (Dt), Andhra Pradesh - 515871
(ii)	Industry category Primary-(STC Code) Secondary- (STC Code)	Red Category
(iii)	Production category	Sinter : 2,98,800 TPA Hot Metal/ Pig iron : 2,50,000 TPA DI Pipe : 1,90,000 TPA Captive Power Plant : 30 MW
(iv)	Year of establishment	1993
(v)	Date of the last environmental statement submitted.	22.09.2024

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PART –B

Water and Raw Material Consumption

(i)	**Water consumption m3/Day**	
	Process	144 m3/Day
	Cooling	2228 m3/Day
	Domestic	39 m3/Day

Name of Products	Process water consumption per unit of products, m3/MT	
	During the previous financial year 2022 - 2023	During the current financial year 2023 - 2024
Sinter	0.20 KL/T	0.16 KL/T
Hot Metal/ Pig Iron	1.17 KL/T	1.04 KL/T
DISP Pipes	1.64 KL.T	1.2 KL/T
Power Plant	0.0059 KL/KWH	0.003 KL/KWH

ii. **Raw Material Consumption**

Name of Product	Name of Raw Material	Consumption of raw material per unit of output	
		During the previous financial year 2022 - 2023	During the current financial year 2023 - 2024
Sinter (Sinter Plant)	Iron ore fines	0.66	0.91
	Limestone fines	0.063	0.11
	Dolomite fines	0.096	0.13
	Quick lime	0.04	0.04
	Coke fines	0.087	0.09
	Return fines	0.167	0.21
	Flue Dust	0.025	0.01
Hot Metal/ Pig Iron (Blast Furnace)	Sinter	1.4	1.47
	Coke	0.68	0.64
	Iron ore	0.52	0.45
	Quartzite	0.065	0.05
	Dolomite	0.014	0.001
	Limestone	0.012	0.001
	Manganese Ore	0.02	0.01
DI Pipes (DISP)	Hot Metal	0.92	1.03
	MS Scrap	0.05	0.04
	Ferro Silicon Granules/ Ferro Silicon lumps	0.004	0.0042
	Pure Magnesium	0.001	0.0012
	Washed Silica Sand	0.034	0.034
	Zinc Wire	0.004	0.004
	Cement OPC 53 Grade	0.098	0.095
	CML Sand	0.16	0.15
	Bitumen Paint (Black & Red)	0.004	4.74
Power Plant	Coal	0.001 MT/KWH	0.0007 MT/KWH

*Industries may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART-C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.
(a) Water	No effluents is generated from the process. All the waste water like blowdown of cooling towers & blow down of boiler is utilized is slag granulation plant/ PCM as a make up water.		Zero Discharge
(b) Air	Monitoring Results submitting to APPCB regularly and the Environmental Monitoring data enclosed as Annexure-3		Results are well below the permissible limits.

PART-D
HAZARDOUS WASTES

(as specified under Hazardous Wastes (Management & Handling Rules, 1989).

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial 2022 – 2023	During the current financial 2023 – 2024
(a). From Process (used oil or waste oil)	Nil	22.34 KL
(b). From pollution control	NA	Nil

PART – E
SOLID WASTES

	Total Quantity (Kg)	
	During the previous financial 2022 – 2023	During the current financial 2023 – 2024
(a) From Process	BF Slag: 24571 T Fly Ash: 2710.57 T	BF Slag: 39510 T Fly Ash: 13833.20 T
(b) From Pollution Control	Flue dust : 2641 T	Flue dust : 3207 T
(c) 1. Quantity recycled (or) reutilized within the unit 2. Sold 3. Disposed	1. Flue dust used in Sinter plant: 2461 T 2. Sold: BF Slag: 1302.24 T Fly Ash: 267.62 T	1. Flue dust used in Sinter plant: 3207 T 2. Sold: BF Slag: 61524.76 T Fly Ash: 13421.20 T

PART – F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

About 22.34 KLA waste oil generated from plant. The total generated waste oil is being used internally for chain lubrication and a small quantity of waste/used oil is being sold to authorised recyclers.

Copy of Form-4 (submitted to APPCB) – Hazardous waste generation/ receipts and consumption / disposal details in the year 2023-2024 is enclosed as **Annexure-4**

PART – G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

M/s. Jindal Saw Limited, has taken enough measures to control pollution with respect to water, air, solid waste and also in the development of greenbelt in and around the factory premises.

Air Pollution:

The emission levels at various stacks and ambient air quality is being maintained well below the statutory limits. Installed pollution control equipment's to mitigate pollution levels in the plant.

Water Pollution:

Plant is zero discharge as industry has installed water recirculation system at individual units in which the water is being recycled & reused. Only makeup water is being taken in the system.

All wastewater like blow down of cooling towers & blow down of boiler is being utilized in slag granulation plant/ PCM as a makeup water.

Energy Conservation:

Clean Blast furnace gas (having 799 – 800 Kcal) is being utilized as fuel in Blast furnace stoves and annealing furnace.

The management is giving top priority for augment of greenbelt by planting variety of saplings at different places in and around plant & colony. Water spraying on roads is being done regularly to control fugitive emissions. The steps taken by the management has reduced the impact of pollution on the surrounding environment.

PART – H

Additional measures/investment proposal for environmental protection including abatement of pollution.

- ✓ Management has planned to replace gas cleaning plant of Blast furnace by Dry De-dusting system (DDS) and also plan to install Pulverized Coal Injection to reduce coke consumption in blast Furnace.
- ✓ By installing DDS will save water consumption by 100 m3/day.
- ✓ Fixed water sprinkling system on Roads.
- ✓ Procurement of Road Sweep Machine.
- ✓ Plantation with watch and care.
- ✓ Manual Environment Monitoring.
- ✓ Biodiversity/ EIA/ EMP/ Occupational Health/ Hydrogeological studies and any other environmental scientific assessments or studies conducted.

PART – I

Any other particulars in respect of environmental protection and abatement of pollution.

The management is giving priority for environment friendly measures. The management will take efforts to maintain clean and green environment in the plant premises.

Management is committed for prevention/abatement of pollution and minimize adverse environmental impacts of the business by ensuring continual improvement of environmental performance and complying to the relevant environmental and other legislation, regulation & other requirements.

- ✓ Installed Online Continuous Ambient Air Quality Monitoring system (CAAQMS).
- ✓ Construction of Infrastructure like Roads, Drainages.
- ✓ Implemented Quality Management System ISO 9001 and maintaining the systems satisfactorily.
- ✓ Medical camps are being conducted at nearby villages on regular basis. Etc.

Annexure-1

Details of Water Consumption (KL)

S.No	Month	Blast Furnace	DI Pipe Plant	Sinter Plant	Power Plant	Domestic
		Cooling Including dust Suppression	Cooling	Process including dust Suppression	Cooling Including dust Suppression	
1	April-2023	16034	12130	2829	22874	1167
2	May-2023	18457	22320	3257	26336	1204
3	June-2023	14125	15980	4258	35198	1056
4	July-2023	16834	22920	4029	29929	1195
5	Aug-2023	23008	16896	4061	24607	1156
6	Sep-2023	24757	17977	4369	25760	1211
7	Oct-2023	25471	14888	4494	23942	1139
8	Nov-2023	22501	19079	3971	23567	1217
9	Dec-2023	20901	19853	3688	21273	1238
10	Jan-2024	24208	21013	4272	19282	1182
11	Feb-2024	22373	23596	3948	24665	1320
12	Mar-2024	22085	17898	4427	33646	1152
	Total	**250754**	**224550**	**47603**	**311079**	**14237**

Annexure-2

Production Details

S.No	Month	Sinter (T)	Hot Metal/ Pig Iron (T)	DI Pipes (T)	Power Plant (KWH)
1	April-2023	11031	13259.07	7355	7494000
2	May-2023	20592	18264.13	9457	9966000
3	June-2023	17054	18021.076	13490	9484000
4	July-2023	20658	17269.375	11654	9046000
5	Aug-2023	22428	23643.629	16673	11297000
6	Sep-2023	24044	21185.312	15778	10960000
7	Oct-2023	23416	22720.106	18739	11212000
8	Nov-2023	38219	22174.041	17887	10550000
9	Dec-2023	36495	22792.025	19325	10955673.8
10	Jan-2024	28674	20384.212	19561	10073959.33
11	Feb-2024	25612	19853.528	18299	9379134.138
12	Mar-2024	29233	21975.62	19768	10853340.47
	Total	**297456**	**241542.104**	**187986**	**121271107.7**

Annexure-2

Raw Materials Consumption (MT)

Sinter Plant

S.No	Month	Iron Ore	Limestone	Dolomite	Quick lime	Coke	Return fines	Flue Dust
1	April-2023	11590.29	2761.75	2134.94	493.785	1280.00	7122.90	297.56
2	May-2023	20686.91	4608.65	2899.90	0	1752.01	4596.64	293.15
3	June-2023	15667.82	4016.23	2449.31	0	1567.02	3667.60	182.6
4	July-2023	18251.56	2623.88	2952.88	493.785	1598.31	5107.40	245.7
5	Aug-2023	28211.87	2609.13	4208.89	948.6	2451.04	7025.60	399.4
6	Sep-2023	25559.57	2184.97	3626.83	1298.34	2407.52	5385.80	297.3
7	Oct-2023	23566.04	1789.40	4149.67	1598.22	2470.78	5995.48	429.5
8	Nov-2023	31454.20	2216.46	4871.03	2012.23	3027.14	5057.10	582
9	Dec-2023	31946.40	2337.85	3729.32	1807.36	2724.55	6568.63	450.641
10	Jan-2024	20793.63	2997.76	2899.60	1524.39	2214.41	3146.84	357.84
11	Feb-2024	19580.72	2021.86	2677.30	1250.60	1918.39	3984.4	316.18
12	Mar-2024	22889.75	3067.27	3173.31	1528.70	2166.95	3389.60	359.32
	Total	**270198.75**	**33235.20**	**39772.99**	**12956.02**	**25578.11**	**61060.99**	**4211.19**

Power Plant

S.No	Name of the Material	April-2023	May-2023	June-2023	July-2023	Aug-2023	Sep-2023	Oct-2023	Nov-2023	Dec-2023	Jan-2024	Feb-2024	Mar-2024	**Total**
1	Coal	5381.906	6824.47	6676.046	6298.288	8203.179	7854.837	8350.531	8604.146	7799.482	7064.822	6404.79	7654.918	**87117.42**

Blast Furnace

S.No	Month	Sinter	Coke	Iron Ore	Quartzite	Dolomite	Limestone	Manganese Ore
1	April-2023	19956.25	8306.85	6231.00	747.617	0	42.226	140.691
2	May-2023	23914.68	10970.76	10350.80	717.138	0	108.199	186.832
3	June-2023	24025.88	10316.35	10063.19	820.378	28.722	31.824	186.832
4	July-2023	25205.35	10035.53	8714.73	1026.33	7.227	0	209.063
5	Aug-2023	35316.04	14276.59	9681.74	1244.74	0	0	298.317
6	Sep-2023	33862.22	13137.51	6271.20	1403.71	21.407	0.516	230.379
7	Oct-2023	34650.72	14053.89	8107.99	1361.11	82.803	54.202	224.133
8	Nov-2023	34464.60	13786.96	7751.61	1170.71	0	28.935	207.693
9	Dec-2023	38882.68	14595.87	5867.94	1383.90	0	0	265.736
10	Jan-2024	28215.97	13330.78	11126.17	870.576	0	0	215.969
11	Feb-2024	27278.16	12719.86	11514.73	1126.60	0	0	119.331
12	Mar-2024	30000.38	14008.67	12781.55	576.30	0	72.93	147.232
	Total	**355772.92**	**149539.61**	**108462.65**	**12449.10**	**140.16**	**338.83**	**2432.21**

DISP Pipe Plant

S.No	Month	Hot Metal (MT)	MS Scrap (MT)	Ferro Silicon Granules/ Ferro Silicon lumps	Pure Magnesium (MT)	Washed Silica Sand (MT)	Zinc Wire (MT)	Cement OPC 53 Grade (MT)	CML Sand (MT)	Bitumen Paint (Black & Red) (Lit)
1	April-2023	8746.71	431.31	36.49	10.49	263.5	43.832	786.3	1769.00	31350.00
2	May-2023	13948.41	625.36	53.01	17.01	482.322	72.305	1327.9	2000.10	49641.40
3	June-2023	14375.593	900	73.88	18.66	495.65	52.498	958.2	1504.80	51461.00
4	July-2023	13026.795	724.63	76.28	16.619	452.18	36.401	1386.6	2219.60	53466.00
5	Aug-2023	17500.703	916.38	120.55	21.8	495.12	73.526	1810.3	2895.70	70883.80
6	Sep-2023	17134.8	910	134.97	20.47	637.217	66.894	1541.1	2632.30	59315.00
7	Oct-2023	17430.22	867.21	120.08	20.96	617	69.807	1697.9	2923.80	57373.70
8	Nov-2023	16700.15	263.96	48.79	18.83	572.538	66.37	1586.3	2591.70	55818.30
9	Dec-2023	18073.066	652.31	40.82	20.69	606.66	55.852	1467.8	2207.50	32522.40
10	Jan-2024	18880.03	322.36	19.92	21.87	564.03	76.957	1739.7	2736.60	67669.50
11	Feb-2024	18073.066	389.05	20.91	20.04	592	70.528	1699.3	2631.10	78724.50
12	Mar-2024	20450.017	20.74	48.31	21.95	638.949	77.141	1914.2	2891.00	78299.40
	Total	**194339.56**	**7023.31**	**794.01**	**229.39**	**6417.17**	**762.11**	**17915.60**	**29003.20**	**686525.00**