

JSW Ispat Special Products Limited

(formerly known as Monnet Ispat & Energy Limited)

Village & P.O.: Naharpali, Tehsil : Kharsia, Raigarh-496 661 (Chhattisgarh)

CIN : L02710MH1990PLC363582, GST : 22AAACM0501D1ZK

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JSWISPL/EMD/NP/471/2022

Date: 31.05.2022

To,

The Addl. Principal Chief Conservator of Forests (C)

Ministry of Env., Forest and Climate Change

Regional Office(WCZ),Ground Floor

East Wing, New Secretariat Building,

Civil Lines,Nagpur-440001

Subject: Six Monthly Environment Compliance and Monitoring Report for the period of **October, 2021 to March-2022** of 1.75 MTPA Integrated Steel Plant, located at Village & Post Naharpali, Tehsil-Kharsia, Dist. Raigarh, Chhattisgarh.

Reference: 1. Environmental Clearance accorded for 1.75 MTPA Integrated Steel Plant vide letter no.F. No. J-11011/196/2007-IA II(I) dated 26.12.2007;
2. F. No. J-11011/196/2007-IA II(I) dated 31.03.2011
3. F. No. J-11011/196/2007-IA II(I) dated 13.04.2017.

Dear Sir,

Please find enclosed herewith Six Monthly Compliance Report along with Environmental Monitoring Reports for the period of October, 2021 to March-2022 with respect to the conditions stipulated in Environmental Clearance accorded vide letter no. J-11011/196/2007-IA II (I) dated 26.12.2007, 31.03.2011 and 13.04.2017 for 1.75 MTPA Integrated Steel Plant, Naharpali, Raigarh, Chhattisgarh. Enclosures as under;

1. **Appendix-A:** Data Sheet, PART-I
2. **Appendix-B:** Compliance Status report along with monitoring Report

This is for your kind perusal and necessary records.

Thanking you.

Yours faithfully,

For, **JSW Ispat Special Products Limited**
(Formerly known as Monnet Ispat & Energy Limited)

Authorized Signatory

Encl: as above

Copy to:

1. **Zonal Officer**, Central Pollution Control Board, 3rd Floor, Sarkar Bhawan, North TT Nagar, Bhopal (M.P.) – 462003.
2. **Member Secretary**, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, North Block Sector - 19, Atal Nagar Raipur (C.G.)

Registered & Corporate Office : JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai-400051

Phone : +91 22 4286 1000, E-mail : isc jispl@aionjsw.in

Raipur Works : Chandkhuri Marg, Village-Kurud, Mandir Hasaud, Raipur-492101 (Chhattisgarh)

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MONITORING THE IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARDS

Ministry of Environment & Forests, Regional Office (WCZ), Nagpur

Monitoring Report

Part-I

DATA SHEET

1	Project type	:	1.75 MTPA Integrated Steel Plant
2	Name of the project	:	JSW Ispat Special Products Limited (Formerly known as Monnet Ispat & Energy Ltd.)
3	Clearance letter(s) / OM no. and date	:	J-11015/196/2007.1A.II(I), 26.12.2007; 31.03.2011 and 13.04.2017
4	Location		
	District(s)	:	Raigarh
	State(s)	:	Chhattisgarh
	Latitude	:	21°58'30.41" N to 21°59'37.87" N
	Longitude	:	83°13'28.25" E to 83°15'11.29" E
5	Address for correspondence		
	a) Address of concerned Project Chief Engineer (with pin code & telephone / telex/ fax numbers)	:	R.K. Patel Factory Manager JSW Ispat Special Products Limited (Formerly known as Monnet Ispat & Energy Ltd.) Village & Post-Naharpali, Tehsil-Kharsia Dist. Raigarh-496661; Ph. 07762-275502
	b) Address of Executive Project Engineer / Manager (with pin code / fax numbers.	:	M. Murlidhar Rao EHS-Head JSW Ispat Special Products Limited (Formerly known as Monnet Ispat & Energy Ltd.) Village & Post-Naharpali, Tehsil-Kharsia Dist. Raigarh-496661; Ph. 07762-251105 Email: env.naharpali@aionjsw.in
6	Salient features		
	a) Of the project	:	Please refer Annexure- A
	b) of the environmental management plans	:	Please refer Annexure- B
7	Break-up of the project area.		
	a) Submergence area (forest & non-forest)	:	Nil
	b) Others	:	227.84 Hectare
8	Break-up of the project Affected population with enumeration of those losing houses / dwelling units only agricultural land only, both dwelling units & agricultural land & landless laborers / artisan.		
	a) SC, ST / Adivasi's	:	Not Applicable
	b) Others (Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures if a survey is carried out give details & year of survey)	:	227.84 Hectares
9	Financial details: Project cost as originally planned and subsequent revised estimates and the year of price reference.	:	2025 Crores (as on 2007)

	a) Allocation made for environmental management plans with item wise and year wise break-up.	:	
	b) Benefit cost ratio / internal rate of return and the year of assessment.	:	
	c) Whether (c) includes the cost of environmental management as shown in the above.	:	Yes
	d) Actual expenditure incurred on the project so far.	:	6917.20 Crore
	Actual expenditure incurred on the environmental management plans so far.	:	6.5 Crore
10	Forest land requirement.		
	a) The status of approval for diversion of forest land for non-forestry use	:	Not Applicable
	b) The status of clearing felling	:	Not Applicable
	c) The status of compensatory afforestation, if any	:	Not Applicable
	d) Comments on the viability & sustainability of compensatory afforestation program in the light of actual field experience so far.	:	Not Applicable
11	The status of clear felling in non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information.	:	Not Applicable
12	Status of construction		
	a) Date of commencement (Actual and /or planned)	:	2008
	b) Date of completion (Actual and / or planned).	:	Not Applicable as project is operational
13.	Reasons for the delay if the project is yet to start.	:	Not Applicable
14	Dates of site visits		
	a) The dates on which the project was monitored by the Regional Office on previous occasions, if any.	:	23.08.2019
	b) Date of site visit for this monitoring report	:	23.08.2019
15	Details of correspondence with project authorities for obtaining action plans / information on status of compliance to safeguards other than the routine letters for logistic support for site visits).	:	11.07.2019

ANNEXURE- {A}

SALIENT FEATURES OF THE PROJECT

JSW Ispat Special Products Limited (Formerly known as Monnet Ispat & Energy Ltd.) is located at village-Naharpali, 25 Km away from district headquarter Raigarh (Chhattisgarh). This was taken over by Aion capitals and JSW Steel Ltd., in September, 2020 from Monnet Ispat and Energy Limited.

Salient features;

- ISO 9001:2015 14001:2015 & 45001:2018 Certified Company.
- JSW Ispat Special Products Limited was established in the year 2008 with the identity of Monnet Ispat and Energy Limited.
- It is close to National Highway NH-200, nearest Railway Station is Kharsia which is 15 KM away and Airport is Jharsugura (Odissa) about 84 KM away.
- Latitudes 21°58'27" & 21°59'30" & Longitudes 83°13'31" & 83°14'55" and height from mean Sea level is 219 m.
- Max. Temp.: 47 °C and Avg. Rainfall is 1200 mm (2021-22).
- Mahanadi River is the main source of water.

About the JSW Group

The JSW Group is known across the country as "Strategic first mover". The company occupies a pivotal part of the O.P. Jindal Group that has emerged as an undisputable world leader in a short span of three decades. Some of the key elements that define the JSW Group are:

- JSW Group is spearheading initiatives in core sectors like Steel, Energy, Cement, Infrastructure, Ventures & Sports.
- It has a diverse workforce of over 40,000 individuals.
- The Group has proven to play a significant role in the growth of the country.

About JSW Ispat Special Products Limited (JSWISPL)

JSW Ispat Special Products Limited (Formerly known as Monnet Ispat and Energy Limited), Raigarh has an integrated Steel plant with a capacity of 1.75 MT of steel production per year through various production facilities. Since inception JSW is giving its first priority to conserve Environment by producing Steel and Iron. JSW Ispat Special Products Limited has its corporate office at Art Guild house, A-Wing 2nd Floor, Unit No. 13, Phoenix Mall Compound, LBS Marg, Kurla West, Mumbai-400 070.

JSWISPL have following production configuration:

SN.	Units	Capacity
1	Pellet Plant	2.20
2	Sponge Iron Unit (DRI)	0.50
3	Blast Furnace	0.70
4	Sinter Plant	0.75
5	Steel Melting Shop	1.74
6	Rolling Mill	0.45
7	Plate mill	0.75
8	Coal Beneficiation Plant	1.00
9	Oxygen Plant	0.13
10	Power Plant	170 MW
11	DG Set	2 x1500 KVA

All the values are in MTPA except Power Plant and DG sets

Board of Directors

The Board of JSW Ispat Special Products Limited (Formerly known as Monnet Ispat and Energy Limited) comprises following Directors:

1. Mr. Jyotin Kantilal Mehta
2. Mrs. Anuradha Ambar Bajpai
3. Mr. Mohan Babu Thirukkoteeswaran
4. Mr. Nikhil Gahrotra
5. Mr. Kaushik Subramaniam
6. Mr. Krishna Deshika
7. Mr. Naresh Kumar Lalwani

ANNEXURE- {B}

ENVIRONMENT MANAGEMENT PLAN

Objectives of Environment Management Plan:

- To establish the present environmental scenario.
- To anticipate the impacts of proposed steel plant on the environment.
- To suggest preventive and mitigating measures to minimize adverse impacts and to maximize beneficial impacts.
- To prepare a detailed action plan for the implementation of mitigation measures.
- To prepare budgetary estimate for monitoring and implementation of environmental control measures for the project.

The environmental management plan is of great importance in controlling the adverse impact of any industrial activity. The Environment Management Plan consists of mitigation measures to be adopted, environmental monitoring and institutional measures (financial estimates and organizational set-up). The present EMP addresses the components of environmental effect during construction and operation by different activities. The proposed measures of mitigation are based upon the impact assessment. While formulating the EMP for this integrated steel plant project, following have been considered:

- 1.0 Existing environmental and operational activities
- 2.0 Air and water pollution
- 3.0 Work zone environment
- 4.0 Solid waste
- 5.0 Occupational hazard and safety
- 6.0 Environmental monitoring
- 7.0 Environmental management cost & organizational set-up

Careful planning and strategy adopted for the operation of a project is the reason for both economic growth as well as environmental protection. All efforts have been made to cover different parameters of the environment to achieve the goal. The following environmental management plans have been made under EMP.

1.0 EXISTING ENVIRONMENTAL AND OPERATIONAL ACTIVITIES

An environmental monitoring and control cell is established. The Environmental Cell is functioning under the control of the plant head. The cell is responsible for monitoring ambient air quality, stack emission, ambient noise in the plant and vicinity, waste water quality and discharge. quality of water bodies receiving effluent, workplace air quality. Additional responsibilities of the cell include the following:

- Conducting annual environmental audit and submit audit report to State Pollution Control Board (SPCB);
- Submit environmental monitoring report to SPCB;

- Conduct regular training programs to educate plant personnel on safety practices to be followed in the plant;
- Conduct safety and health audits to ensure that recommended safety and health measures are being followed; and
- Inform the management regularly about conclusions/results of monitoring and recommend environmental protection measures.

2.0 AIR AND WATER POLLUTION

2.1 Air Environment Management:

The vision of JSW Ispat Special Products Limited is deeply concerned with green & clean environment. Efforts have been taken to prevent any sort of pollution, generated due to plant activities. Opacity meters are installed in all the major stacks for continuous observation of the performance of pollution control devices. We have also established online ambient air quality monitoring stations for continuous ambient air quality monitoring through highly sophisticated instruments. Following Air pollution control measures have been taken across the units are as given below-

Units	Air Pollution Control measures
SPONGE IRON DIVISION	<p>In Sponge Iron unit, raw materials like Iron ore, Dolomite and coal are fed to the kiln to produce sponge iron. Hot flue gases from DRI kilns contain high SPM level and heat. These are taken to dust chamber, which also acts as after combustion chamber for complete combustion and then to Waste Heat Recovery Boilers (WHRB).</p> <ul style="list-style-type: none"> ▪ Waste Heat Recovery Boilers are designed to recover sensible heat of waste gases leaving sponge iron kiln for generation of steam. Steam is fed to Steam Turbine Generator to produce power. ▪ After heat exchange in WHRB, the flue gases are taken to Electrostatic Precipitator (ESP) and clean gases are discharged through stack.
CAPTIVE POWER PLANT	<p>In Power Plant, Atmospheric Fluidized Bed Combustion (AFBC) and Circulating Fluidized Bed Combustion (CFBC) boilers are used to produce steam from coal having high ash content and other carbon bearing nonmagnetic materials like char, coal washery rejects, etc. The boilers produce 2x120 & 1x336 tons/ hour steam, which is fed to turbines to produce electricity.</p> <ul style="list-style-type: none"> ▪ Electrostatic Precipitators are provided to control the point source emission in power plant. ▪ Flue gases from boilers pass through ESP and thereafter discharged through the stack.
ROLLING MILL	<p>In Rolling mill / Bar mill, Steel bar and structural are produced and main raw materials are steel bloom, beam and blank.</p> <ul style="list-style-type: none"> ▪ Blast furnace gases and FO/LDO are used as fuel.

	<ul style="list-style-type: none"> ▪ There is no major dust generation source and stack is provided for wide dispersion of gases.
BLAST FURNACE	<p>In Blast Furnace, raw materials like iron ore, limestone, coke, dolomite, manganese ore and quartz are stored in raw material storage yard and fed to the blast furnace. Blast furnace is a vertical shaft, in which extremely high temperature is created to recover pure iron from iron ore.</p> <ul style="list-style-type: none"> ▪ TRT are made function to utilize waste gas of Blast furnace. ▪ Waste gas/dust generated during process is arrested through Dry Gas Cleaning system and clean air is discharged through stack. ▪ The BF gas emanating from blast furnace top contains dust. This gas is first passed through the dust catchers where a major portion of dust is eliminated and dust load comes down. ▪ This gas is further cleaned in bag filter system; where the dust is fully recovered and the pure gas after cleaning passes through the chimney.
SINTER PLANT	<p>Sinter plant is a straight grate type with circular cooler where raw materials like iron ore fines, limestone, dolomite and calcined lime are used as raw material. A sinter cake is produced as a result of baking and diffusion of solids on the sinter strand. The desired product size for the blast furnace is obtained in the crushing and screening station.</p> <ul style="list-style-type: none"> ▪ Electrostatic Precipitators are installed to control the point source emission from process area as well as material transfer points. ▪ Bag Filter are installed to check fugitive emission at material transfer points. ▪ Water sprinkler systems are installed to minimize the fugitive dust generation and road side/yards/
STEEL MELTING SHOP	<p>In Steel Melting Shop, steel slabs / billets and rounds are produced using electric arc furnace and raw materials are pig iron, sponge iron, scrap, ferroalloys, lime, burnt dolomite and fluxes.</p> <ul style="list-style-type: none"> ▪ Dust, fume generated from electric arc furnace (EAF) are being routed through fume extraction system (FES) and taken to after combustion chamber. ▪ The SPM bearing gases are passed through water cooled duct to bring down the temperature to 130 – 140 °C before entering a bag filter then discharged through stack. Similarly, the SPM bearing gases generated from the ladle refining furnace are collected using FES. ▪ The fugitive emission from the continuous casting machine shop is generally confined within the shed. ▪ To disperse the fugitive emissions outside the shed, adequate Ventilation is provided.
PELLET PLANT	<p>Pollution control measures have been envisaged for process gas and plant deducting to limit the dust content in outgoing gases to keep within the prescribed limit capacities.</p> <p>The plant is designed with electrostatic precipitators (ESPs) on the indurating</p>

	<p>process as discharge: Hood Exhaust & Wind box Exhaust</p> <ul style="list-style-type: none"> ▪ SP dust will be collected in a launder and discharged into a slurry sump. The hood exhaust ESP sump pumps will discharge to a plant thickener. ▪ The wind box exhaust ESP sump pumps will discharge to a sieve bend, which will remove coarse grit and pellet chips. The sieve bend slurry will discharge to the thickener. The oversize will be collected in a tote box. ▪ The hearth layer bin area of indurating machine will be combined with hood exhaust gases. ▪ To check fugitive emission during crushing, screening and charging, bag filters have been provided. ▪ All dust collected through bag houses, ESP is being recycled in the process.
COAL WASHERY	<p>At present coal washery unit is not in operation, however following measure have been adopted for abatement of pollution.</p> <ul style="list-style-type: none"> ▪ Fine atomizer nozzles arrangement has been provided on the coal heaps and on the screen houses and near crushers. ▪ Water sprinkling will be done at all strategic coal transfer points such as conveyors, loading/unloading points, conveyor transfer points etc. ▪ Apart from this, we have a provision of bag filters at the coal crushers with adequate water sprinkling arrangement subjected on good fugitive emission control. Vehicular movement in the coal washery area will be regulated effectively to avoid traffic congestion. ▪ Area, in and around the coal washery will be made pucca either asphalted or concreted to reduce the fugitive emissions. ▪ Green belt is being developed around the coal washery area.

2.2 Water Environment Management:

Management is very conscious for controlling water pollution and water conservation, for which, plant has adopted Close Water Circuiting arrangement to maintain 'Zero Discharge'. Water pollution sources and control systems envisaged are as given below-

Source	Pollutants	Control systems
Raw materials handling	Suspended Solids	Catch pits and garland drains
DM water plant	pH	Neutralising pit
Cooling tower blow down	Temperature	Reused in the plant for dust suppression
Boiler blow down	Suspended Solids	Suppression and slag granulation
Canteens	BOD, Suspended Solids	Sewage Treatment Plant (STP)
Raw water treatment	Suspended Solids	Clarifier, thickener sludge
Blast furnace gas cleaning plant	Suspended Solids	Clarifier, recirculation of under flow
SMS and Wire rod mill	Suspended Solids & oil grease	Settling tanks with oil skimmers
Iron ore Palletization Plant	suspended solids/Slurry	Thickener

Various water pollution control measures have been taken, the measures taken across the units are summarized herewith-

Units	Water Pollution Control Measures
Sponge Iron Plant,	<ul style="list-style-type: none"> ▪ In DRI Kilns Cooling water is being recycled into the process by air cooling. ▪ Discarded cooling water is being utilized in other activities like dust suppression, ash conditioning, Kiln hot spot cooling, floor washing through drain system.
Power Plant	<ul style="list-style-type: none"> ▪ DM plant rejects is being neutralized in neutralizing pit and reused for ash conditioning purpose. ▪ Cooling tower blow-down water are reused for dust suppression at CHP yard, Coal cleaning in coal washery plant and floor washing activities.
Rolling mill / Bar mill	<ul style="list-style-type: none"> ▪ Wastewater generated from rolling mill area is skimmed in scale pit and then recycled back into the system. ▪ Skimmed waste oil is sent to store for further disposal to authorized recycler. ▪ Recovered scale from pit is utilized in furnace for metal recovery.
Blast Furnace	<ul style="list-style-type: none"> ▪ GCP installed at Blast Furnace is working on dry gas cleaning process hence, there is no effluent generation. ▪ Cooling tower blow-down & softener spent re-generated water is being reused in Slag granulation, dust conditioning and dust suppression activities.
Sinter Plant	<ul style="list-style-type: none"> ▪ Cooling tower blow down is being used for sinter nodulizing process. ▪ Fresh water us only used to compensate the evaporation loss.
Steel Melting Shop EAF & Ladle furnace	<ul style="list-style-type: none"> ▪ Wastewater generated from SMS area is skimmed in scale pit and then recycled back into the system. ▪ CT Blow down water is reused for cooling and settle down the flue gas residue in High Temperature Quenching tower (HTQ). ▪ Skimmed waste oil is sent to store for further disposal to authorized recycler. ▪ Recovered scale from pit is utilized in furnace for metal recovery.
Pellet Plant	<ul style="list-style-type: none"> ▪ The water requirement in the pellet plant to maintain the moisture level in Green pellet which is fulfill by the reuse of Cooling Tower Blow down water. ▪ The same is also being utilized for Launder operation where all the dust is converted into slurry and taken to the thickener plant, where the water is separated from the iron ore fines and the clear water.
Coal Washery	<p>At present coal washery unit is not in operation, however following measure have been adopted for abatement of water pollution.</p> <ul style="list-style-type: none"> ▪ Effluent from the washery will be treated in effluent treatment plant and the treated effluent will be recirculated. ▪ The washery will be worked as a Zero Discharge Unit. The media water after being used for washery and all the suspended particulate matter would be squeezed and the clear water is recycled back to the process. ▪ The underflow concentrate from the thickener is pumped to the vacuum disc type filter.

	<ul style="list-style-type: none"> ▪ The filtrate along with any wash water is re-circulated back to the system thereby ensuring the close circuit of the system. ▪ The treated waste water will be under the prescribed limits and will be recycled back continuously thereby maintaining Zero Effluent Discharge from Coal Washery area.
Oxygen Plant	Make-up water is added to substitute evaporation and drift loss. The blow-down will be used for slag granulation.
Other Water Pollution Control Measures	<p>The following treatment and disposal measures have been planned.</p> <ul style="list-style-type: none"> ▪ The wastewater from water pre-treatment, containing high-suspended solids, has collected in a settling basin, where the suspended solids are settle down partly by gravity. ▪ The supernatant water is pumped back into the raw water reservoir. ▪ Blow down from the boilers is being collected in a sump and pumped back into the raw water reservoir. ▪ Blow down water from the cooling water system, containing suspended solids and high TDS, will be transferred to the ETP sump for stabilization, mixing and settling of coarser solids. ▪ Wastewater from the DM Plant is being neutralized in a neutralization tank and transferred to the ERS sump. ▪ Floor washings is being collected in a sump, passed through oil traps, and transferred to the ETP sump for mixing, stabilization and settling. ▪ Wastewater collected in the ERS sump will be subjected to clariflocculation and settling. The clear water is being utilized quantitatively for dust suppression and ash handling. ▪ Domestic water is being treated in a sewage treatment plant (STP) based on activated sludge process. The treated water will be utilized quantitatively for horticulture and green belt. ▪ In the sintering shop, the reclaimed water is discharged through the RCC pipe by itself to the hot water pond of the circular system and after cooled is used by recycling.

3.0 WORK ZONE ENVIRONMENT

In operation phase noise and dust is often seen in work zone area. To Control and mitigation measures for abatement of dust emissions and noise level are as follows.

- Dust extraction systems, with bag filters have been installed at all transfer points and crushing/grinding operations.
- Dust laden air is drawn through ID Fans, and passed through bag filters to bring down the dust content below 50 mg/Nm³. The clean air is discharged into the atmosphere.
- Raw materials and finished product are stored in covered sheds.
- Water sprinkling is done regularly over all open storage dumps of solid wastes and raw materials.

- Significant plantation and green belt development has been envisaged to mitigate the impact of fugitive dust on ambient air.
- Monitoring of the fugitive dust shall be carried out at various places within the project site to ensure compliance to.
- The equipment's with high noise such as crusher, air compressor and air blower has enclosed in soundproof rooms, vibration-reducing material shall be installed on the foundation, and mufflers shall be installed at entrances and exits.
- Rubber boards are lined at the corners of coal and coke carrying corridors, U-shaped sliding channels has been adopted for conveying to reduce noises from collision of materials.
- Noise isolation by landforms, high buildings and trees is also considered in the layout plan to reduce noise.
- Provision of silencer at inlet and outlet of fans.

4.0 SOLID WASTE MANAGEMENT

JSWISPL has implemented a very efficient solid waste management system to overcome all these problems. Type, sources and management of solid waste are summarised as follows-

UNITS	Solid Waste	Utilization/ Disposal Method
SPONGE IRON	Dolochar	Power Plant
	ESP + Bag Filter Dust	Brick manufacturing unit and filling of abandoned mines
	Kiln Accretion	Road making
POWER PLANT	Fly ash	Brick manufacturers, cement plant and filling of abandoned mines
	Bottom Ash	
SMS	EAF Slag	Crush and segregate into mag & non-mag slag through crushing unit. Mag slag is being re-cycled and rest non-mag slag is being used for land compaction/ road making etc.
	LRF Slag	Used in land filling/road embankment.
	FES Dust	Recycled in Sinter Plant
	Skull Generation	Reused back in Steel Melting Shop
BLAST FURNACE	BF Slag	Collected and sold to Cement Plant for utilisation in cement manufacturing.
	GCP Dust	Re-used in Sinter Plant by charging along with raw materials.
Bar Mill	End cutting/Mill scale	Reused in Sinter/SMS unit

Other control measures for solid waste:

- In this integrated steel plant, substantial fraction of input comes out as solid waste which is

generally reused in other plants. The EAF and LRF generates considerable amount of solid waste, which may be used for landfill, road making, etc.

- Large quantity of solid waste is generated from power plant as ash, which is collected through ESP economizer and hopper. The fly ash will be sent to the clinker grinding unit for manufacture of cement and the remaining ash will be sent for disposal. No ash storage is proposed.
- Quantity of generated hazardous waste is being disposed-off to authorized recycler. However, even the limited quantities of generated oil/grease and resin can cause negative impact if not disposed-off appropriately.
- The other type of solid wastes generated will include the dust collected from dust collectors, empty barrels (metal and plastic), bags, sweepings and other biodegradable wastes from the canteen.

A. Compliance status of the Environment clearance granted for the integrated Steel Plant vide dated F. No. J11011/196/2007- IA II (I) dated 26th Dec, 2007

SN	Condition	Status as on 31.03.2022
A.	SPECIFIC CONDITIONS	
i.	Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. Online stack monitoring facilities for all the stacks and sufficient air pollution control methods to control emissions from the kiln and WHRB shall be provided viz. Electrostatic precipitation (ESP) and bag filters etc. to keep emissions level below 100mg/Nm ³ . Gas cleaning plant (GCP) and Ventury Scrubbers shall be provided to blast furnace (BF). The BF gases shall be cleaned in gas cleaning system (GCS) and used in AFBC power plant. Kiln Off gases shall be used as fuel in the waste heat recovery boiler (WHRB).	<ul style="list-style-type: none"> ▪ Pollution control equipment like ESP, Bag filters has installed at all the process stacks, All the transfer points are equipped with adequate water sprinkling system to keep emission level within prescribed limits. ▪ Particulate matter emission from all the stacks is being maintained well within prescribed limit. ▪ Continuous emission monitoring system facilities has also provided to all process stacks. ▪ Scrubber and GCP Installed in Blast Furnace. Blast furnace exhaust gases are routed through Gas cleaning plant (GCP), further utilizes as a fuel in re-heating furnaces and Palletization plant. ▪ Kiln off gases is being utilized as a fuel in the waste heat recovery boiler (WHRB).
ii	Secondary fugitive emissions from blast furnace and sinter plant shall be controlled within the latest permissible limits issued by the ministry and regularly monitored. Guidelines/Code of practice issued by the CPCB shall be followed.	<p>Central de-dusting system has been provided in Blast furnace cast house and stock area to control secondary fugitive emission.</p> <p>In Sinter plant, adequate and highly efficient Bag filters have been installed in material transfer points to control the secondary fugitive emission.</p>
iii	Total requirement of the water from Mahanadi River shall not exceed 37,340 m ³ /day. Acidic and alkaline wastewater from demineralization unit shall be neutralized in neutralization tank. The wastewater from gas cleaning plant (GCP) of BF plant shall be treated in thickener to remove SS and recycled. As reflected in the EIA/EMP report, the wastewater generated from the various units shall be properly recycled and reused in the process and for cooling, palletizing, slag granulation, horticulture etc. The wastewater from coal beneficiation plant shall be reused for ash slurry preparation for the disposal of ash generated from AFBC boiler. No wastewater shall be discharged outside the premises and 'Zero' discharge shall be strictly followed as proposed. The domestic effluent shall be treated in septic tank followed by soak pits and used for green belt development.	<p>Agreed and complied.</p> <p>Acidic and alkaline wastewater from demineralization is being neutralized in neutralization pit.</p> <p>The wastewater generated from Blast Furnace is being recycled and reuse in slag granulation activity.</p> <p>Waste water generated from the various units is being collected in settling tank and is being utilized in dust suppression at material storage yards, pellet granulation and horticulture purposes in localized area.</p> <p>Domestic effluent is treated in STP and treated waste water is utilized in green belt development activities maintaining, 'Zero Effluent Discharge'.</p>
iv	Prior permission for the drawl of ground as well as surface water from Mahanadi river from the state ground water Board/ Central Ground Water Authority / concerned Department shall be obtained.	Permission for drawl of ground water from CGWA/CGWB have been granted vide NOC CGWA/NOC/IND/ORIG/2020/7569; dated 03.03.2020. and also permission granted from Water Resource Department (C.G.) for surface water drawl. Copy of the same is attached hereby. Annexure-I
v	All the char from DRI plant shall be utilized in AFBC Boiler of power plant and no char shall be disposed-off	<ul style="list-style-type: none"> ▪ All the char from generated from DRI plant is being utilized in AFBC Boiler in Captive power unites.

	anywhere else. The other entire solid / hazardous waste generated shall be properly utilized or disposed off in environment friendly manner. ESP fly ash and bag filter shall be made available to the cement plants and brick making plants whereas bottom ash shall be disposed-off in a suitably designed landfill as per CPCB guideline to prevent leaching to the sub-soil and underground aquifer. Mill scale shall be reused in Ferro alloy/ pig iron furnace. The liquid slag shall be granulated in cast house granulation unit and given to cement plants/ brick manufacturers for further utilization. Non-granulated slag shall be used in making roads. DM resin shall be disposed in properly cemented pit. Waste oil and lubricant shall be sold to authorized recyclers. Kiln accretions shall be utilized for filling low lying areas. ETP sludge shall be used in brick making and filling low lying areas.	<ul style="list-style-type: none"> ▪ Hazardous waste disposed-off to only CPCB Authorized vendor. ▪ Fly ash /ESP dust is being supplied to bricks/ blocks manufactures, cement manufactures and to fill abandoned stone mine quarries. ▪ Mill scale generated from Rolling mill is used in the SMS unit. ▪ Granulated slag generated from Blast Furnace unit is being supplied to cement manufacturing unit. ▪ Non granulated slag generated from SMS, metal is recovered and recycled into the process, rest crushed and utilized for road embankment purpose. ▪ No DM resin were generated during the period. ▪ Used oil/ used lubricants is being sold out to authorized recycler/vendor. ▪ Kiln accretion is utilized as land filling for low lying areas. ▪ Sludge generated from water treatment plant is used as a soil conditioner in horticulture activities.
vi	All the fly ash shall be utilized as per fly Ash Notification, 1999 and subsequently amendment in 2003.	Fly ash generated from power generation units is being utilized 100% in brick, cement manufacturing Unit, rest of ash utilized for filling of abandoned stone quarry with prior permission of state pollution control board.
vii	Green belt shall be developed in at least 33% within and around the plant premises as per the CPCB guidelines in consultation with DFO.	Till now we have planted 180810 plants in and around our premises and the information of the same has been communicated vide letter no. JSWISPL/NP/EMD/471 /2022; Date: 24.05.2022
viii	Prior permission from the state forest department shall be taken regarding likely impact of the expansion of the proposed steel plant on the surrounding reserve forests viz. Rabo RF (0.92 Km, NE), Bansajhar RF (6.07Km, SW), Burha pahar (6.64 Km, W), Kenmura PF (2.64 Km, SW), Bendojhariya PF (5.11 Km, SW)	Noted please.
ix	All the recommendations made in the charter on Corporate Responsibility for Environment protection (CREP) for the steel sector shall be strictly implemented.	Noted please.
B. GENERAL CONDITIONS		
i	The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the state Government.	Accepted. All the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the state Government are being followed.
ii	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and forests.	Accepted.
iii	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this ministry on 19th 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 monitoring system shall be installed in stacks to monitor SPM and interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the	<p>High efficiencies ESP and Bag Filters installed at all process and transfer points to keep emission level within the prescribed norms. Apart from these, dust suppression system is installed to control fugitive dust from transfer points.</p> <p>Online continuous Emission monitoring system installed at all stacks.</p>

	limit.	
iv	In plant control measures for checking fugitive emissions from all the vulnerable sources like spillage/raw materials/coal handling etc. shall be provided. Further specific measures like provision of dust suppression system consisting of water sprinkling, suction hoods, fans and bag filters etc., shall be installed at material transfer points, blast furnace stock, house and other enclosed raw material handling areas. Centralized De-Dusting System for collection of fugitive emissions through suction hood and subsequent treatment through bag filter or any other device and finally emitted through a stack of appropriately designed height conforming to the standards for induction furnaces existing in the industry and proposed induction and arc furnaces. Fugitive emissions shall be regularly monitored and records maintained.	Adequate Bag filters have been provided at all material transfer points and other enclosed raw material handling areas. Water sprinkling systems have been provided at conveyors, storage yards and raw material handling areas to check fugitive dust. In addition to the above, water sprinklers are also provided on haul areas, leading to yards. Centralized de-dusting system has been installed at stock house and raw material handling area to collect the fugitive dust. Pneumatic dust extraction system has been provided to check the fugitive dust while conveying the collected dust from pollution control equipment.
v	At least four ambient air quality monitoring stations should 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 CECB. Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhopal and the CSEB / CPCB once in six months.	Four Online Ambient Air Quality Monitoring Stations are placed in four directions of the plant as suggested by the CECB which is interconnected with CECB/CPCB website. Monitoring data of the stations is being submitted regularly to CECB, Regional office at Raigarh & head office, Raipur and CPCB Delhi. Apart from the above, ambient air quality and stack monitoring report is being submitted to the board on monthly basis and six monthly to MoEF & CC Regional office, Nagpur and CPCB Bhopal. Copy of the same is attached herewith as Annexure-IIA & IIB
vi	Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1933 and 31st December 1933 or as amended from time to time. The treated waste water shall be utilized for plantation purpose.	Acidic and alkaline wastewater from demineralization is being neutralized in neutralization pit and reused in dust suppression. Waste water generated from the various units is being collected in settling tank and is being utilized in dust suppression at material storage yards, pellet granulation and horticulture purposes in localized area. Domestic effluent is treated in STP and treated waste water is utilized in green belt development activities maintaining, 'Zero Effluent Discharge'.
vii	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) 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 dB A (day-time) and 70 dB A (night-time)	As a control measures, silencers and enclosures have been provided at all noise generating sources and as a secondary control measure PPE's like Earplugs/earmuff have been provided to the personals working in high noise prone areas. Regular monitoring of noise level is also in practice. Massive thick plantation is in and around the plant to control noise level. Annexure-IIIA
viii	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Regular health check-up of all workers is being carried out and record is being maintained. Annexure-IV
ix	The Company shall develop surface water harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	All the surface runoff drains are interconnected into the pit for water harvesting which recharge the ground water and is being utilized for dust suppression system and horticulture.
x	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 social-economic development	We are committed to comply with all environmental protection measures and safeguards recommended in EIA/EMP report. We also undertake socioeconomic activities in nearby villages and focus areas are as

	activities in the surrounding villages community development programmes, educational programs, drinking water supply and health care etc.	education, health, infrastructure, sustainable livelihood and social issues. Annexure-V
xi	The project authorities shall also provide adequate funds both recurring and non-recurring to implement the conditions stipulated the Ministry of Environment and Forest as well as the state Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.	Separate funds have been allocated for environmental protection measures and implementing the conditions stipulated by MoEFCC and State Boards.
xii	The Regional Office of this Ministry at Bhopal / CPCB/ CECB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Agreed. Six monthly compliance reports along with monitoring data are being submitted to the Ministries regional office in soft copies regularly. Last compliance report submitted vide letter no. JSWISPL/EMD/NP/449/2021; Date: 27.11.2021
xiii	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 the CSEB and may also be seen as website of the Ministry of Environment and Forests at http://enfor.nic.in This shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office.	Complied
ix	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.	Noted please

B. Compliance Status Report of the condition stipulated in Environmental Clearance for amendment in Environmental Clearance for inclusion of Oxygen Plant vide letter no. F. No. J-11011/196/2007 IA II (I) date: 31st March, 2011

No	Condition	Status as on Status as on 31.03.2022
1.	Data on ambient air, stack and fugitive emissions shall be regularly submitted online to Ministry's Regional office at Bhopal, SPCB and Central Pollution Control Board as well as hard copy once in six months and display data on RSPM, SO ₂ , and NO _x outside the premises at the appropriate site for the general public.	Environmental monitoring data is being submitted to CECB regularly as well as six monthly compliance reports is also submitted to regional office within stipulated time. Apart from the above, monitoring report of the same is being displayed at outside of the company's main gate for public domain. Annexure-VI(A)
2.	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16th November, 2009 shall be followed.	Agreed. Ambient Air Quality monitoring data are within the prescribed norms. Annexure-IIA
3.	The project proponent shall also submit six monthly reports on status of the compliance of stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhopal/CPCB/SPCB shall monitor the stipulated conditions.	Six monthly compliance reports along with monitoring data are being submitted to the Ministries regional office in soft copies regularly. Last compliance report submitted vide letter no. JSWISPL/EMD/NP/449/2021 ; Date: 20.05.2021
4.	The environmental statement for each financial year ending on 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environmental (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	The environmental statement and status of compliance of environmental conditions is being submitted to the State Pollution Control Board, Raipur and Regional office, MoEF, Nagpur in stipulated time frame. Last Environmental Statement has been submitted vide letter no JSWISPL/NP/EMD/432/2021 ; dated: 27.11.2021 Status of compliance of environmental conditions along with monitoring report have also been published in company's website at www.aionjsw.in . Annexure-VI (B)
5.	At least 2% of the total cost of the project (increased cost after amendment) shall be embarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.	During the financial year 2021-22 around Rs. 0.46 Crore has voluntary incurred towards the corporate social responsibility. Item-wise details are summaries in annexure-V

C. Compliance Status Report of the condition stipulated in Environmental Clearance for change of boiler configuration in Integrated Steel Plant (1.75 MTPA) and Captive Power Plant (240 MW) of JSWISPL, Naharpali vide letter no. F. No. J-11011/196/2007 – IA II (I) dated 13th April, 2017

SN	Specific Condition	Status as on 31.03.2022
1.	The project proponent should install 24x7 air monitoring devices to monitor air emission and submit report to Ministry and its Regional Office.	Online ambient air quality monitoring system as well as continuous emission monitoring system in all stacks has been Installed and real time data is hook-up with the CPCB server. Apart from above, Air quality and emission monitoring report is being submitted to ministry and regional office regularly.
2	All conditions stipulated in the earlier ECs granted to the project should be strictly adhered to.	Agreed
3	Total quantum of dust release and pollution which is being released today has to be maintained even after increase in the pellet plant capacity.	Agreed. ESP and Bag Filter installed at Pellet Plant area of adequate capacity and efficient to handle the additional pollution load as prescribed and keep it in within the prescribed norms all the time.
General Condition		
1	The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Pollution Control Board and the State Government.	Agreed and followed.
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Agreed
3	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM ₁₀ , PM _{2.5} , SO ₂ and NO _x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Nagpur and the SPCB/CPCB once in six months.	There are four Online Ambient Air Quality Monitoring Stations are placed in four directions of the plant as suggested by the CECB which is interconnected with CECB/CPCB website. Monitoring data of the stations is being submitted monthly to CECB, Regional office at Raigrah and CECB, head office, Raipur. Copy of the same is enclosed herewith as Annexure-IIA
4	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31 st December 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Agreed. Waste water generated from the various units is being collected in settling tank and is being utilized in dust suppression at material storage yards, pellet granulation and horticulture purposes in localized area. Domestic effluent is treated in STP and treated waste water is utilized in green belt development activities maintaining, 'Zero Effluent Discharge'. Copy of analysis report is enclosed in Annexure III (B)
5	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) 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 Liz.75 dBA (daytime) and 70 dBA (nighttime).	As a control measures, silencers and enclosures have been provided at all noise generating sources and as a secondary control measure PPE's like Earplugs/earmuff have been provided to the personals working in high noise areas. Monitoring of noise level is done on monthly basis and report of the same is submitted to the board regularly. Copy of the Monthly report is enclosed herewith as annexure-III A
6	Occupational health surveillance of the workers shall	Regular health check-up of all workers is being carried

	be done on a regular basis and records maintained as per the Factories Act.	out and record is being maintained. Please refer Annexure-IV
7	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	All the surface runoff drains are interconnected into the pit for water harvesting which recharge the ground water and is being utilized for dust suppression system and horticulture.
8	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EI/VEMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply & health care etc.	We are committed to comply with all environmental protection measures and safeguards recommended in EIA/EMP report. We also undertake socioeconomic activities in nearby villages and focus areas are as education, health, infrastructure, sustainable livelihood and social issues. Annexure-V
9	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Nagpur. The funds so provided shall not be diverted for any other purpose.	Separate funds have been allocated for environmental protection measures and apart from the onetime capital expenditure every year recurring fund have been provided for implementing the conditions stipulated by MoEFCC and State Boards.
10	A copy of clearance letter shall be sent by the proponent to concerned panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Agreed
11	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEFCC at Nagpur. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain	Agreed The criteria pollutant levels namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) is being monitored and displayed at main gate of the company in the public domain. Annexure-VI(A) The data along with compliance report have also been published in company's website at www.aionjsw.in Annexure-VI(B)
12	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB, The Regional Office of this Ministry at Nagpur / CPCB / SPCB shall monitor the stipulated conditions.	Six monthly compliance reports along with monitoring data are being submitted to the Ministries regional office in soft & hard copies regularly. Last compliance report submitted vide letter no. JSWISPL/EMD/NP/449/2021; Date: 27.11.2021
13	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequent shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the	The environmental statement and status of compliance of environmental conditions is being submitted to the State Pollution Control Board, Raipur. Last Environmental Statement has been submitted vide letter no. JSWISPL/NP/EMD/432/2021; dated: 18.09.2021

	respective Regional Office of the MOEFCC at Nagpur by e-mail.	Status of compliance of environmental conditions also sent to the respective Regional Office of the MOEFCC at Nagpur by via email dated, May 22, 2021
14	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 the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http://envfor.tic.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 should be forwarded to the Regional office at Nagpur.	The Environmental Clearance had been made public via local newspapers.
15	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.	Agreed

end of report*

ANNEXURE-I

छत्तीसगढ़ शासन
जल संसाधन विभाग,
मंत्रालय, रायपुर

क्रमांक 4555 / 29/31/93/म/औजप्र/डी-4, रायपुर, दिनांक 28/09/2004
प्रति,

✓ मुख्य अभियंता,
हसदेव कछार,
जल संसाधन विभाग,
दिलासपुर (छ.ग.)

विषय- मेसर्स मोनेट इस्पात लिमिटेड द्वारा रायगढ़ के समीप प्रस्तावित केटिव पॉवर प्लांट के साथ इंटोग्रेटेड स्टील प्लांट को महानदी से 5 एम.जी.डी. (लगभग 8.30 मिलियन घन मीटर वार्षिक) जल आवंटन की निश्चित स्वीकृति।

संदर्भ-1. मंत्रालय पत्र क्रं.-5594/29/31/93/म/औजप्र/डी-4, रायपुर, दिनांक 01.09.2003।
2. आपका पत्र क्रं.-911/21/मा/प्र-2/दिलासपुर, दिनांक 08.07.2004। (4-57)

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विषयागत प्रकरण में छत्तीसगढ़ शासन, जल संसाधन विभाग के संदर्भित पत्र क्रमांक-1 द्वारा जारी 5 एम.जी.डी. जल आवंटन की सैद्धांतिक स्वीकृति के तारतम्य में मोनेट इस्पात लिमिटेड द्वारा रायगढ़ के समीप प्रस्तावित केटिव पॉवर प्लांट के साथ इंटोग्रेटेड स्टील प्लांट हेतु महानदी से उसके तट पर स्थित ग्राम बालपुर के पास से 5.00 मिलियन गैलन प्रतिदिन (लगभग 8.30 मिलियन घन मीटर वार्षिक) जल-आहरण की निश्चित स्वीकृति, निम्नलिखित शर्तों के आधार पर दी जाती है :-

1. महानदी के निर्धारित स्थल से संस्थान के कार्यस्थल तक पानी ले जाने हेतु आवश्यक व्यवस्था (नदी में इटेक बेल का निर्माण, पाईप लाइन बिछाना आदि), जल संसाधन विभाग के अनुमोदन उपरान्त संस्थान स्वयं के व्यय से करेगा एवं इस संबंध में आवश्यक भू-अर्जन एवं अन्य जो भी समस्या आयेगी उसका निराकरण संस्थान स्वयं के व्यय पर स्वयं करेगा।
2. संस्थान द्वारा आहरित जल की मात्रा के माप हेतु, संस्थान द्वारा नदी में निर्मित-किए जाने वाले इटेक बेल में इलेक्ट्रॉनिक माप यंत्र लगाया जायेगा, जिसका जल संसाधन विभाग द्वारा समय-समय पर निरीक्षण (सत्यापन) किया जायेगा।
3. संस्थान द्वारा जल आहरण स्थल के ऊपर एवं नीचे आसपास के ग्रामवासियों के पूर्व में स्थापित तटीय अधिकारों (Riparian Rights) की रक्षा को जायेगी तथा निचले क्षेत्र में निस्तार आदि हेतु सतत जल-प्रवाह रखा जायेगा।
4. किसी कारणवश नदी में जल की कमी होने पर शासन इसके लिये जवाबदार नहीं होगा एवं इसके लिए शासन के विरुद्ध किसी प्रकार का दाय्य मान्य नहीं होगा।

MONNET IRON & STEEL ENERGY LIMITED

(AUTHORISED SIGNATORY)

Executive Engineer
Jal Sanadhan Vibhag
Raipur

5. संस्थान, उपयोग परचात अपने संवंत्र से निस्सारित जल का रि-साइकलिंग करके इसका उपयोग करेगा तथा राज्य प्रदूषण नियंत्रण मंडल के नियमों के अनुसार निस्सारित करेगा ताकि नदी के निचले भाग के क्षेत्र में जल प्रदूषण की कोई समस्या उत्पन्न न हो ।
6. संस्थान द्वारा जल आहरण प्रारंभ करने के पूर्व शासन के निर्धारित प्रपत्र-7 (क) में, शासन के अनुमोदन परचात जल संसाधन विभाग से अनुबंध किया जाएगा ।
7. संस्थान, छत्तीसगढ़ शासन द्वारा वर्तमान में निर्धारित एवं भविष्य में समय-समय पर निर्धारित किये जाने वाली बड़ी हुई औद्योगिक जल-दरों एवं औद्योगिक जल प्रदाय से संबंधित अन्य जल करों (कमिटमेंट चार्जिस आदि) का नियमानुसार भुगतान जल संसाधन विभाग को करेगा तथा यह दरें संस्थान पर बंधनकारी होगी ।
8. संस्थान को आबंटित कुल 5 एम.जी.डी (लगभग 8.30 मि.घ.मी. वार्षिक) जल उपयोग की अनुमति के परिपेक्ष्य में उनके द्वारा वास्तविक रूप से उपयोग किये गये जल की मात्रा को समय-समय पर समीक्षा की जायेगी ।
9. संस्थान को इस स्वीकृति के जारी होने के दिनांक से 4 वर्षों के अंदर जल का उपयोग प्रारंभ करना होगा एवं उपरोक्तानुसार समस्त शर्तों का पालन करना होगा, अन्यथा यह स्वीकृति निरस्त मानी जावेगी ।

सहपत्र-0

(सरजियस मिंज)
प्रमुख सचिव, 21/9/04
जल संसाधन विभाग,
मंत्रालय, रायपुर

पू० क्रमांक / 29 / 31 / 93 / म / औजप / डी-4, रायपुर, दिनांक / 09 / 2004
प्रतिलिपि:-

1. प्रमुख अभियंता, जल-संसाधन विभाग, रायपुर की ओर संदर्भित पत्रों के परिपेक्ष्य में सूचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित ।
2. संयोजक सह प्रमुख सचिव, राज्य निवेश प्रोत्साहन बोर्ड, मंत्रालय के पास (रेणुका द्वार), शास्त्री चौक, रायपुर,
3. अचर प्रबंध संचालक, सी.एस.आई.डी.सी.डी-4, एम.आर.कालोनी, शैलेन्द्र नगर, रायपुर, एवं
4. मुख्य कार्यकारी, मोनेट इस्पात लिमिटेड, चंद्रखुरी मार्ग, मंदिर हसौद (रायपुर), की ओर संदर्भित पत्र क्रमांक-1 के पृष्ठांकन के परिपेक्ष्य में सूचनार्थ अग्रेषित

सहपत्र-0

MONNET ISPAT & ENERGY LIMITED

(AUTHORISED SIGNATORY)

विशेष कर्तव्यरथ अधिकारी,
जल संसाधन विभाग,
मंत्रालय, रायपुर



भारत सरकार
जल सशक्ति मंत्रालय
जल संसाधन, नदी विकास
और नगर संरक्षण विभाग
केन्द्रीय जल प्राधिकरण
Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Ground Water Authority

(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:	M/s Monnet Ispat And Energy Limited		
Project Address:	Village and Post - Naharpali, Tehsil - Kharisla, Raigarh, Chhattisgarh		
Town:	Naharpali	Block:	Kharisla
District:	Raigarh	State:	Chhattisgarh
Pin Code:	496661		
Communication Address:	M/s Monnet Ispat And Energy Limited, Village and Post - Naharpali, Tehsil - Kharisla, Raigarh, Chhattisgarh - 496661		
Address of CGWB Regional Office :	Central Ground Water Board, North Central Chhattisgarh Region, 2nd Floor, LK Corporate and Logistic Park, Dhamtar Road, NH-30, Dumataral, Raipur, Chhattisgarh - 492015		

1. NOC No.:	CGWA/NOC/IND/ORIG/2020/7569										
2. Application No.:	21-4/1777/OT/IND/2018	3. Category:	Industry								
4. Project Status:	Existing Project	5. NOC Type:	New								
6. Valid from:	03/03/2020	7. Valid up to:	02/03/2022								
8. Ground Water Abstraction Permitted:											
Fresh Water		Saline Water		Dewatering		Total					
m ³ /day	m ³ /year	m ³ /day	m ³ /year	m ³ /day	m ³ /year	m ³ /day	m ³ /year				
400.00	145000.00					400.00	145000.00				
9. Details of ground water abstraction/Dewatering structures											
Total Existing No.:10						Total Proposed No.:0					
	DW	DCB	BW	TW	MP	DW	DCB	BW	TW	MP	
Abstraction Structure*	0	0	10	0	0	0	0	0	0	0	
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit											
10. Quantum of ground water recharge/harvesting(m ³ /year):	255312.00										
11. Number of Piezometers (Observation wells) to be constructed/ monitored & Monitoring mechanism.	No. of Piezometers	Monitoring Mechanism									
		Manual	DWLR**	DWLR With Telemetry							
**DWLR - Digital Water Level Recorder	1	0	1	0							

(Compliance Conditions given overleaf)

Digitally signed by
NANDAKUMARAN P
Date: 2020.03.09 17:38:36 +05'30'

ANNEXURE-IIA

JSW ISPAT SPECIAL PRODUCTS LIMITED

(Formerly known as Monnet Ispat and Energy Ltd.)

AMBIENT AIR QUALITY MONITORING REPORT

PERIOD : OCTOBER-2021 TO MARCH-2022

Station Name/ Parameter	CAAQMS-I					CAAQMS-II					CAAQMS-III					CAAQMS-IV				
	PM ₁₀	PM _{2.5}	CO	SO ₂	NO _x	PM ₁₀	PM _{2.5}	CO	SO ₂	NO _x	PM ₁₀	PM _{2.5}	CO	SO ₂	NO _x	PM ₁₀	PM _{2.5}	CO	SO ₂	NO _x
MONTH	RESULTS in µg/m ³ ; Prescribed Standard: PM ₁₀ -100 µg/m ³ PM _{2.5} -60 µg/m ³ ; SO ₂ & NO _x -80 µg/m ³ and CO-2.0 mg/8Hr.																			
Oct-21	66.2	33.5	0.4	4.7	20.6	64.4	31.3	0.5	3.8	14.7	70.3	33.5	0.5	4.9	16.3	*	*	*	*	*
Nov-21	65.6	30.9	0.2	12.4	15.4	67.3	31.3	0.5	10.2	27.2	60.5	34.4	0.5	3.8	26.6	56.6	22.8	0.4	13.2	17.7
Dec-21	59.7	31.6	0.2	12.1	28.5	65.4	34.2	0.5	11.4	17.5	64.3	31.8	0.7	9.2	21.5	50.0	24.0	0.4	6.0	16.1
Jan-22	59.2	31.9	0.5	8.5	23.4	62.7	28.3	0.5	14.8	14.7	64.8	33.3	0.8	8.3	26.8	47.4	21.3	0.4	7.7	17.0
Feb-22	65.2	39.4	0.4	5.1	24.1	56.8	31.6	0.6	9.1	15.5	62.1	32.8	0.6	7.9	15.4	65.2	25.4	0.4	10.2	17.3
March-22	65.2	34.6	0.4	5.1	24.1	57.9	31.1	0.6	10.1	13.8	71.7	36.4	0.5	8.4	14.4	62.4	25.5	0.3	11.2	18.1
	• System under maintenance																			

ANNEXURE-IIB

JSW ISPAT SPECIAL PRODUCTS LIMITED

(Formerly known as Monnet Ispat and Energy Ltd.)

STACK EMISSION MONITORING REPORT

PERIOD : OCTOBER-2021 TO MARCH-2022

Station Name/Parameter	DRI Stack 1 (Kiln 1&Kiln 2)		DRI Stack 2 (Kiln 3 & Kiln 4)		DRI Stack 3 (Kiln 5 & Kiln 6)		STACK-4 (CCP AFBC)			STACK-5 (CCP CFBC)			STACK-6 (Pallet Plant)	STACK-7 (Rolling Mill)	STACK-8 (Blast Fur.)	STACK-9 (Sinter Plant)	STACK-10 (SMS)	
	SO ₂	PM	SO ₂	PM	SO ₂	PM	SO ₂	NOx	PM	SO ₂	NOx	PM	PM	PM	PM	PM		
MONTH	RESULTS in mg/Nm ³ ; Prescribed Standard: PM- 50 mg/Nm ³ ; SO ₂ -600 mg/Nm ³ and NOx-300 mg/Nm ³																	
Oct-21	218.2	36.6	221.5	38.5	210.5	40.1	290.4	127.6	41.8	305.9	119.7	39.8	38.3	*	35.7	37.8	27.4	
Nov-21	232.6	40.5	229.4	38.2	218.8	42.1	228.1	121.5	40.9	248.9	132.7	37.8	40.4	*	34.8	31.6	25.3	
Dec-21	210.3	42.7	225.1	40.6	202.4	43.2	290.3	135.8	41.2	285.4	141.7	44.3	43.8	*	34.7	37.8	30.5	
Jan-22	205.4	40.4	198.2	42.8	210.5	39.7	280.9	133.6	37.2	291.7	138.3	39.0	37.2	*	26.8	41.7	21.5	
Feb-22	210.3	38.6	204.2	40.7	215.6	41.2	295.7	135.2	39.3	305.4	133.6	41.5	41.2	16.3	32.9	38.3	22.6	
March-22	215.3	39.8	221.7	40.4	218.4	39.0	315.6	142.3	41.2	322.2	140.5	37.2	37.8	*	33.4	29.2	33.6	
* Unit Closed																		

ANNEXURE-IIIA

NOISE LEVEL MONITORING REPORT WORK ZONE & AMBIENT-DAY TIME; (OCTOBER-2021 TO MARCH-2022)

SN	LOCATION	MONTH					
		Oct-21	No-21	Dec-21	Jan-22	Feb-22	Mar-22
POWER PLANT							
1	TG 2	85.2	83.8	84.5	84.6	84.0	84.6
2	TG 3	84.4	84.7	83.4	85.2	84.8	85.2
3	Boiler 80 MW	83.7	83.6	82.3	84.3	83.5	83.8
4	CHP Unit	77.3	80.7	81.7	72.1	74.5	79.3
SPONGE IRON DIVISION							
5	Near Kiln # 1	81.4	81.7	80.2	82.9	82.5	81.2
6	Near Kiln # 3	83.2	83.2	82.8	83.5	82.8	83.2
7	Near Kiln # 6	82.9	83.2	80.3	84.3	83.4	81.6
8	RMH Unit	76.2	81.6	83.2	82.4	81.6	80.7
10	PSB Area	84.7	83.5	84.9	85.2	84.2	85.6
SINTER PLANT*							
11	ESP Area	81.3	84.6	84.2	83.8	84.6	82.5
12	Sinter Cooler Area	80.4	80.4	82.3	84.6	83.7	80.9
13	Control room	68.7	66.7	71.0	73.6	72.6	65.2
SMS							
14	Near EAF	82.8	82.8	84.4	83.5	84.3	85.6
15	Near LRF	83.5	83.5	84.2	84.7	83.5	84.2
16	Billet caster	85.7	85.7	83.5	84.9	84.5	83.8
BLAST FURNACE							
17	Blast Furnace Control room	73.4	72.3	70.1	74.2	76.3	76.4
18	BF Stove (Cast House)	83.7	82.7	84.8	83.4	83.6	84.7
19	Pump House	81.5	84.6	83.2	85.2	84.2	83.6
ROLLING MILL							
20	Reheating Area	*	*	*	*	*	*
21	CNC Room	*	*	*	*	*	*
22	Cooling Bed	*	*	*	*	*	*
PELLET PLANT							
23	Near Ball Mill	85.6	84.7	83.1	81.4	83.6	79.5
24	Near Indurating Furnace	84.2	83.4	84.2	84.6	85.2	83.2
25	Gas Booster	83.5	85.8	84.7	83.4	82.6	84.7
26	Near Thickener	82.7	83.2	82.3	84.1	83.8	83.4
AMBIENT NOISE LEVEL MONITORING REPORT							
1	Main Gate (Outside)	68.2	67.3	69.3	68.5	65.9	65.7
2	Gate No. 2 (Near WTP-2)	66.4	65.4	61.2	63.2	69.9	67.1
3	Gate-3 (Near Pellet Plant)		71.7	72.5	62.9	68.8	68.2
4	Colony Gate	66.4	63.4	63.4	63.2	64.5	62.1

* Unit Closed and All values are in dB(A)

ANNEXURE-III (B)

WASTE WATER ANALYSIS REPORT (OCTOBER-2021 TO MARCH-2022)

S. N.	Characteristics	Permissible Limits	Oct-21	No-21	Dec-21	Jan-22	Feb-22	Mar-22	Oct-21	No-21	Dec-21	Jan-22	Feb-22	Mar-22
			Effluent Recycle System (ERS)						Sewage Treatment Plant (STP)					
			Sample Results											
1	Temperature	Not more than 5°C to intake water	29.4	28.5	27.2	26.4	28.2	28.5	30.2	29.0	26.5	25.7	26.5	27.6
2	pH	6.0-8.5	7.7	7.4	8.0	7.8	8.0	7.8	7.4	7.7	7.5	8.0	7.7	7.4
3	TSS	100.0 mg/l	44.2	38.3	40.7	36.4	42.3	38.0	18.6	15.7	10.8	13.2	14.6	10.2
4	Chemical Oxygen Demand (COD)	250.0 mg/l	76.8	70.7	78.4	81.6	75.8	80.0	34.4	30.2	28.0	32.8	29.4	26.4
5	Biochemical Oxygen Demand (BOD) at 27°C	30.0 mg/l	1.7	2.6	3.7	3.0	2.8	2.2	2.4	1.8	2.1	3.5	1.7	2.0
6	Oil & Grease	10.0 mg/l	1.2	1.5	2.0	1.7	1.4	2.0	0.4	0.7	1.2	1.0	0.8	0.6

ANNEXURE-IV**Health Check-up Record**

Employee Code	Employee Name	Age	Gender	Department (Org)	Date of Medical Check-up 2022	PME Sr. No.
1022111	Ganesh Das Mahant	37	Male	Civil	21.03.2022	PME0159/22
1020082	Earle Prasad	30	Male	Sinter Plant	21.03.2022	PME0160/22
1021808	Santosh Kumar Chouhan	41	Male	Administration	21.03.2022	PME0161/22
1021802	Shahjad Khan	41	Male	Power Plant	22.03.2022	PME0162/22
1022094	Pyarelal Bawane	43	Male	Power Plant	22.03.2022	PME0163/22
1020076	Yogesh Patel	34	Male	Power Plant	22.03.2022	PME0164/22
1020084	Virendra Yadav	33	Male	Power Plant	22.03.2022	PME0165/22
1022500	Ramesh Gupta	46	Male	Bar Mill	22.03.2022	PME0166/22
1021998	Roop Lal Patel	35	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0167/22
1022570	Amit Kumar Kashyap	38	Male	Blast Furnace	22.03.2022	PME0168/22
1022043	Labho Ram	50	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0169/22
1088484	Soubhagya Jata	37	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0170/22
1022115	Hem Lal Sahu	35	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0171/22
1021956	Manoj Yadav	46	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0172/22
1021911	Laxman Pd. Banjare	49	Male	Power Plant	22.03.2022	PME0173/22
1020033	A. Kiran	26	Male	Sinter Plant	22.03.2022	PME0174/22
1025614	Yadavalli Tulsi Naga Venkata Mani Teja	23	Male	Raw Materials Handling System	22.03.2022	PME0175/22
1022480	Dharmendra Singh	47	Male	Power Plant	22.03.2022	PME0176/22
1022439	Bijaya Kumar Ojha	39	Male	Sinter Plant	22.03.2022	PME0177/22
1022557	Jagadish Yadav	32	Male	Steel Melting Shop(SMS)	22.03.2022	PME0178/22

1022111	Ganesh Das Mahant	37	Male	Civil	21.03.2022	PME0159/22
1020082	Earle Prasad	30	Male	Sinter Plant	21.03.2022	PME0160/22
1021808	Santosh Kumar Chouhan	41	Male	Administration	21.03.2022	PME0161/22
1021802	Shahjad Khan	41	Male	Power Plant	22.03.2022	PME0162/22
1022094	Pyarelal Bawane	43	Male	Power Plant	22.03.2022	PME0163/22
1020076	Yogesh Patel	34	Male	Power Plant	22.03.2022	PME0164/22
1020084	Virendra Yadav	33	Male	Power Plant	22.03.2022	PME0165/22
1022500	Ramesh Gupta	46	Male	Bar Mill	22.03.2022	PME0166/22
1021998	Roop Lal Patel	35	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0167/22
1022570	Amit Kumar Kashyap	38	Male	Blast Furnace	22.03.2022	PME0168/22
1022043	Labho Ram	50	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0169/22
1088484	Soubhagya Jata	37	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0170/22
1022115	Hem Lal Sahu	35	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0171/22
1021956	Manoj Yadav	46	Male	Direct Reduced Iron (DRI)	22.03.2022	PME0172/22
1021911	Laxman Pd. Banjare	49	Male	Power Plant	22.03.2022	PME0173/22

ANNEXURE-V

CSR ACTIVITIES DETAILS

FY 2021-2022

Sr. No.	Description of voluntary social initiatives	Nature of activity	Amount (in Rs.)
1	Incurred towards the distribution of Computer, LCD Projectors and interactive Board provided to Jawahar Navodaya Vidyalaya and schools located in 10, Adopted villages Block - Kharsia, Dist- Raigarh (CG), financial support for Alumni Association to GEC NIT Raipur	Education	50000
2	Expenditure incurred to Provide oxygen Concentrators & Oximeter in Health Center for covid hospital Raigarh and Bhupdevpur, Providing ambulance facilities Occupational health care services, Dental checkup camps, health Camp of HIV & Tuberclosisi improvement in hospital infrastructures, Meal facility for Govt Medical staff, Awarness Programe as per MOU with Distric Health Department (TB,HIV)	Health	742949
3	Initiative for clean water, local road repairs, help to flood affected areas, funding to local CSR Cell under, collectors order, Distribution of grocery item at villages, sponsoring sports tournaments, AVM commercial Raigarh (3 D LED Letter Board)	Community Development	754,266
4	Training in Sewing for women and conducting examination	Women empowerment	147535
5	Amount deposited in the Dist. Administration fund account.	Infrastructure development	3000000
	Total		4694750

ANNEXURE-VIB

DATA PUBLISHED IN WEBSITE

Clearances



Hazardous Waste Return
2020 to 2021

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EC Compliance Report
Oct 2020 to Mar 2021

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EC Compliance Report
- Hahaladdi Iron Ore Mine

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Environment Clearance
- Raipur

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Annual Environment Statement 2018-19
- Raipur

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Fly Ash Annual Return
2020 to 2021

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EC Compliance Report - Raigarh
Apr 2020 to Sep 2020

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EC Compliance Report
Oct 2019 to Mar 2020

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Fly Ash Utilization Report
Apr 2019 to Mar 2020

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Six Monthly EC Compliance Report Jul-Dec 2019
- Raipur

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