AM/NS INDIA

Ref No.: AMNS/51/23

Date: 29.11.2023

To

The Addl. Principal Chief Conservator of Forests (C),
Ministry of Environment, Forest and Climate Change, Govt. of India,
Eastern Regional Office, A/3, Chandrasekharpur, Bhubaneswar — 751023.
Odisha.

Sub.: Submission of Half yearly EC compliance report for the period from April 23 to September 23 by M/s. ArcelorMittal Nippon Steel India Limited located At- Udayabata, Post- Paradip, Tehsil Kujang, District- Jagatsinghpur, Odisha

Dear Sir,

We are submitting herewith the half yearly EC compliance for the period from April 23 to September 23 to the conditions stipulated in the following Environmental Clearances:

1. Environment Clearance for 6 MTPA Integrated Steel Plant of M/s Essar Steel India Ltd. vide letter no. J-11011/129/2007-IA II(I) dated 29.05.2008 at Paradeep, Odisha and subsequently change made in the company name in Environment Clearance titled "1 x 6 MTPA Iron ore Pellet Plant (PP-01) located at Paradeep, Dist-Jagatsingpur, Odisha" from Essar Steel Orissa Limited to M/s ArcelorMittal Nippon Steel India Ltd. Odisha dated 24th June 2021.
2. Environment Clearance for completion of balance work of 6 MTPA Pellet Plant (Unit-2) of 12 MTPA Pellet Plant by M/s. ArcelorMittal Nippon Steel India Limited located at Udayabata, Post- Paradip, Tehsil- Kujang, District-Jagatsinghpur, Odisha" vide F. No. J-11011/129/2007-IA-II(I) dated 13th August, 2021.
3. Environmental Clearance for 60 (2X30 MW Phase- I) MW coal based Captive Thermal Project at Village Bijaychandrapur, Paradeep in Jagatsinghpur district by M/s Essar Power Orissa Ltd. vide Ref. No. SEIAA/219/ENV dated 16.04.2011 subsequent name change from M/s Essar power (Orissa) Ltd. to M/s. ArcelorMittal Nippon Steel India Ltd. vide File No. SIA/OR/THE/289000/2022 dated 06th February 2023.
4. Environmental Clearance for 2X30 MW (Phase-II) coal based captive power plant at Bijaychandrapur in the district of Jagatsinghpur vide Ref. No. 638/SEIAA dated 17.11.2011 and subsequent transfer of EC from Essar Power (Orissa) Ltd. to M/s ArcelorMittal Nippon Steel India Ltd. vide File No. SIA/OR/THE/213436/2021 dated 01st December 2022.

This is for your kind perusal please.

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Thanking you

Suresha G
Executive Director, Odisha Assets
For ArcelorMittal Nippon Steel India Ltd.

Encl.: As above

Copy to: The Regional Director, Central Pollution Control Board, Kolkata, West Bengal

The Member Secretary, State Environment Impact Assessment Authority, Bhubaneswar, Odisha

The Member Secretary, Odisha State Pollution Control Board, Bhubaneswar, Odisha

The Regional officer, Odisha State Pollution Control Board, Paradeep, Odisha

ArcelorMittal Nippon Steel India Limited

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A joint venture between ArcelorMittal and Nippon Steel Corporation

ArcelorMittal NIPPON STEEL

Half yearly EC Compliance Report (April' 2023 to September' 2023)

EC Title:

"New Title of EC: "1 x 6 MTPA Iron ore Pellet Plant located at Paradeep, Dist- Jagatsinghpur, Odisha of ArcelorMittal Nippon Steel India Ltd".

Clearance Letter/Proposal No & Date:

J-11011/129/2007-IA II(I), DATED 29.05.2008 and name change dated 24.06.2021 (Proposal No-IA/OR/IND/206293/2021 dated 16.6.2021)

A. SPECIFIC CONDITIONS:

SL. NO.	CONDITIONS	COMPLIANCE STATUS
i)	Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted.	Action plan already submitted through 1st compliance report and RSPM level is well within the permissible limit, and which is monitored on every month. Monitoring report submitted to SPCB on monthly basis and Regional office of Ministry on half yearly basis.
ii)	On-line stack monitoring facilities for all the stacks and sufficient air pollution control devices provided viz. ESP, bag filters, scrubbers, cyclones etc. to control emissions from all the sources including captive power plant shall be provided to keep emission levels below 100 mg/Nm3 and report submitted to the Ministry 's Regional Office at Bhubaneswar, CPCB and OPCB.	On-line stack monitoring facility of Forbs marshal make, On-line SO2 analyzer (Environment SA make) already installed in chimney. The real time data are being transmitted to SPCB and CPCB through M/s Glens. Pollution control equipments like high efficiency ESP (F L Smidth make), Bag filter (F L Smidth, Dustvan, Batliboi make) and wet scrubbers (Bold Rich make) are in operation. Emission level is well within the limit of 100 mg/Nm3. Monitoring report submitted to SPCB on monthly basis and Regional office, MoEF on half yearly basis.
iii)	Gaseous emission levels including secondary fugitive emissions from blast furnace, sinter plant and power plant shall be controlled within the latest permissible units issued by the ministry and regularly monitored. Guidelines / code of practices issued by the CPCB shall be followed and report submitted to the Ministry's Regional Office at Bhubaneswar, CPCB and OPCB.	Not Applicable.
iv)	In-plant control measures for checking fugitive emissions from all the vulnerable sources like Sinter Plant, BF , BOF Shop and Steel melting shop	Sinter plant, BF, BOF and steel melting shop not yet established. Water sprinkling is provided in stockpile area, stacker/ reclaimer areas and conveyor.

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	etc. shall be provided. Further specific measures like water sprinkling and dry fogging shall be carried out at the stock piles of raw material, stacker reclaimer, conveyor transfer points and vibrating screens etc. Fume extraction system in steel refining units shall also be provided. Centralized de-dusting system ie, 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 and height conforming to the standards of induction furnaces in the industry shall be provided. Fugitive emissions shall be controlled, regularly monitored and records maintained.	transfer points and vibrating screens etc. A Fog Canon of capacity 25lpm with a throw of 30m and a working pressure of 18 bar is in operation. In addition to that DFDS installed in different product conveyor points to control fugitive emission. Regularly it is monitored through NABL accredited laboratory.
v)	Electrostatic Precipitator (ESP) shall be provided to Pellet Plant, Blast Furnace(BF),Sinter Plant and Power Plant and particulate emissions shall not exceed 100mg/Nm3. Gas Cleaning Plant shall be provided to BF. Bag filters shall be provided to Pellet Plant, BF, SMS, Lime and Dolomite Plant. Gas recovery holder and secondary air exhaust with bag house shall be provided to SMS. Dust suppression system shall be provided to raw material storage and handling area, Sinter Plant. Emissions from transfer points in material handling plant shall be controlled by dust extraction system.	• High efficiency ESPs for Pellet Plant has been designed with an additional field and PM concentration of less than 50mg/Nm3 is being achieved. • High capacity bag filters have been installed in Additive Grinding Building, Bin & Mix Building. Bold Rich make high capacity wet scrubber type Dust Extraction System have already been installed at Hearth Layer Separation Building, Indurating discharge end and indurating feed end and in operating very efficiently. • BF and SMS are not yet established. • High efficiency water sprinklers have been installed in the iron ore fines stock yard. Bentonite, coke breeze and Lime stock yards are covered.
vi)	Total requirement of water from Taldanda Canal shall not exceed 2582 m3/hr. The waste water from Blast Furnace and steel melting shop shall be treated in effluent treatment plant(ETP). The acidic and alkaline waste water from De-mineralization Plant shall be treated in neutralization pit, scale pit, settling tank, filters and oil skimmers shall be provided to continuous casting shop. All the treated waste water shall conform to the norms prescribed by OPCB /CPCB and Ministry under E(P) Act. The domestic waste water after treatment in STP shall be used for green belt.	Total drawl of makeup water from Taladanda canal is 54 cum/hr and 378 cum/hr from slurry water for the operation of 6 MTPA Pellet Plant. • BF and SMS are not yet established. • Domestic waste water is sent to soak pit through septic tank. A 15 KLD STP has already been installed and in operation to treat waste water of both the Canteens. Treated water from STP is being used in gardening purpose.
vii)	Prior permission for the drawl of 2582 m3/hr of water from Taldanda Canal from the concerned department shall be obtained.	Permission for drawing water from Taladanda Canal @ 3550m3/hr has already been obtained vide Letter

		No.12432/WR/Irr-II-WRC-22/07 dated 18.04.07 from the Water Resource Dept. of Govt. of Odisha.
viii)	Ground water monitoring around the solid waste disposal site/secured land fill (SLF) shall be carried out regularly and report submitted and report submitted to the Ministry's Regional Office at Bhubaneswar, CPCB, OPCB.	Test well shall be dug around the waste disposal site during construction and operation of Integrated Steel Plant. Presently not applicable. It will be done when Integrated Steel Plant becomes operational. Ground water monitoring is carried from the tube well on monthly basis and report submitted to OSPCB on monthly basis and Ministry's Regional office on half yearly basis.
ix)	ESP fines from the Pellet Plant shall be recycled and reused in the Pellet Plant. Sludge from BF Plant, slag and dust from steel making shop shall be used in the Sinter Plant. All the Blast Furnace (BF) slag shall be granulated and provided to cement manufacturers. Splashes ,skull and scale from the BF Plant shall be used in Steel Making Shop .Scrap from the slab caster shall be used in steel making.SMS slag shall be used in the Sinter Plant. All other solid wastes shall be properly disposed off in environment friendly manner. Used oil shall be sold to recyclers.	ESP fines of the Pellet Plant are collected wet slurry form and reused in Pellet Plant itself. Used Oil/Waste Oil is always sold to an authorized re- processor only. SMS, BF are not yet established.
x)	A time bound action plan shall be submitted to the Ministry and its Regional Office at Bhubaneswar to reduce solid wastes, its proper utilization and disposal.	The only solid waste in the form of iron ore fines generated in the Pellet Plant is being recycled in Plant. Action plan for reduction of other solid wastes shall be submitted after establishment of integrated Steel Plant.
xi)	As proposed, green belt shall be developed in 485 acres out of total 1925.42 acres and efforts shall be made to develop green belt further to cover 33% area within and around the plant premises as per the CPCB guidelines in consultation with DFO.	This condition is for total areas of ISP but ISP facilities dropped down. Currently total Pellet Plant area is 54.69 Ha i.e 135.14 Ac. Plantation programme has been taken under green belt development plan and total plantation covered area is 21.95 Ha i.e 40.1% of total plant area of 54.69 Ha with total 59200 numbers of saplings. In F.Y 2023-24, 5000 nos of saplings have been planted in addition to earlier reported 54200 saplings to fill the gap in existing plantation cover area. Local species such as Neem, Radha Chuda, Chattiyana, Kadamba, Karanja, Spathodia, Patoli, Badam, Champa, Mango, Jamun, Mahagoni, Sishoo have been planted as consultation with DFO.
xii)	All the recommendations made in Charter on Corporate Responsibility for Environmental	Steel plant facilities has been dropped down.

	Protection (CREP) for Steel Plant shall be implemented	
xiii)	No coke oven plant shall be installed without taking prior environmental clearance from the Ministry	Agreed. No coke oven plant established yet.
xiv)	Prior environmental clearance shall be taken for Beneficiation Plant and all the stipulated environmental conditions shall be implemented satisfactorily.	MoEF has granted EC on 04.05.09 vide LetterNo.11015/876/2007-IA.II(M) to beneficiation plant.
xv)	Prior permission from the State Forest Department regarding impact of proposed project on Mangrove Swamp and recommendations suggested shall be implemented	AMNS has deposited Rs. 357.781 Crore in State Forest Department for the purpose of implementation of various activities within the project impact area in Mangrove Forest Division (WL), Rajnagar. Site specific conservation plan and its implementation status have been received from Divisional Forest Officer, Mangrove Forest Division (WL) Rajnagar vide letter No. 7144/1F-Acct-45/2023 dated 24th November 2023
xvi)	No construction activity on the Forest Land shall be initiated without taking prior forest clearance from the concerned Central/State Govt.	No construction activity has been undertaken on forest land.
xvii)	Rehabilitation and Resettlement Plan shall be implemented as per the revised R&R Policy and in collaboration with the State Government in a time bound manner and report submitted to the Ministry ,its Regional Office at Bhubaneswar and OPCB.	ISP EC has been dropped and there is no displacement as on date in Pellet Plant.

GENERAL CONDITIONS(S):

SL. NO.	CONDITIONS	COMPLIANCE STATUS
i)	The Project Authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board (OPCB) and the State Government	Note. It is being adhered strictly.
ii)	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests	Prior approval will be taken for expansion/ Modification.
iii)	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 13th May,1993 and standards specified 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	On-line stack monitoring facilities have already been installed in the RCC stack to monitor concentration of Particulate Matter and SO2 in stack emission. Additionally, manual monitoring is also being undertaken and monthly reports are submitted to SPCB as per CPCB guidelines.

	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 limit.	
iv)	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, SO2 and NOx are anticipated in consultation with OPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the OPCB/ CPCB once in six months.	AAQ is being monitored at 04 locations as per the CPCB guidelines and in consultation with the Regional Office, SPCB. Additionally, 03 On-line Continuous Ambient Air Quality Monitoring Stations have also been installed and commissioned with transmission of real time data to SPCB and CPCB server. Another 02 numbers of CAAQMS already procured and materials received at site. It will be installed after completion of civil work.
v)	Industrial waste water shall be properly collected, treated so as to conform 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 shall be utilized for plantation purpose.	The surplus process water after being treated in WTP and Thickener gets recycled/used in Captive Power Plant, Green Belt development, firefighting and dust suppression.
vi)	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules,1989 viz.,75 dBA(Day time) and 70 dBA(Night time)	Noise levels are monitored periodically. However, as a proactive measure, ear protectors are being provided to those workers working in the Main water Pump House, Filtration Building at 6 mts, Filtration Building Ground Floor, Indurations Building Feed end area, IDB Burner Floor (North side), IDB Pellet discharge end, Balling Disc area, IDB Ground Floor, Discharge end Scrubber, Soft water & Cold water pump House and at ESP Area. Ambient noise levels ranges from 60.7 db to 72.5 db at day time and from 50.7 db to 63.7 db at night time and its is well within the standards prescribed under EPA Rules,1989.
vii)	The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	In order to increase the holding capacity of rain water, an existing Pond has already been renovated extensively. Surface run off treatment plant of 160m3/hr is installed for treatment and reuse of surface run off water. Feasibility study was carried out by one NABL and NABET approved agency for possibility water harvesting in the area as water table and it is found at very high level in the locality unsuitable for recharging.
viii)	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	It Is being done every year in concurrence with the requirements of the Factories Act,1948 and Odisha Factories Rules,1950.
ix)	The Project Proponent shall also comply with all the environmental protection measures and	CSR & CER activities are undertaken jointly on a regular basis.

	safeguards recommended in the EIA/EMP Report. Further the Company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Summarized Report on CSR activities for the period from April'23 to September'23 is enclosed as **Annexure – I.**
x)	As proposed, the project authorities shall earmark Rs.450 crores and Rs.10 crores for capital cost and recurring cost per annum respectively for environmental protection measures and use judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Funds have been earmarked for Environment protection in Plant's Opex and revenue budgets. The entire HSE related expenditure required was met from the Operation Budget of CY23 and CAPEX23.
xi)	The Regional Office of this Ministry at Bhubaneswar/CPCB/OPCB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Submission of compliance reports are being done on half yearly basis by 1st December for the period from April-September and 1st June for the period from October- March to the Regional office of the Ministry.
xii)	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 OPCB and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional Office.	Complied. It has been advertised in English News Daily. "The New Indian Express" and Oriya News Daily " Oriya Bhaskar" dated 21st & 22nd June 2008 respectively.
xiii)	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 of the land development work.	Financial Closure has been completed in Sept. 2008 and construction activities started in 2008 and production started in 2012.

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EC Title:

"Environmental Clearance for completion of balance work of 6 MTPA Pellet Plant (Unit-2) of 12 MTPA Pellet Plant by M/s. ArcelorMittal Nippon Steel India Limited located at Udayabata, Post- Paradip, Tehsil Kujang, District- Jagatsinghpur, Odisha".

Clearance Letter/Proposal No & Date:

J-11011/129/2007-IA II(I), Proposal No- IA/OR/IND/204957/2021 dated 17/07/2021

A. Specific Condition:

Sl. No.	Conditions	Compliance Status
i.	No construction activity/infringement will take place in flood plain of Mahanadi River located at a distance of 0.20 kms from the boundary of the plant site. Project proponent shall maintain the plant level at least 4.0 meters above MSL and strengthen the existing bund/embankment along the Mahanadi River.	No construction activity/ infringement took place in flood plain of Mahanadi River located at a distance of 0.20 kms from the boundary of the plant site. Plant level is maintained at more than 4.0 meters above MSL and strengthening of the existing bund/embankment along the Mahanadi River is being taken.
ii.	Particulate matter emission from all the stacks shall be less than 30mg/Nm3 By installing bag filters with PTFE membrane. PM emission limit of 30 mg/Nm3 for the operational 6.0 MTPA pellet plant module, shall be achieved by upgrading the existing air pollution control devices by December 2022.	Necessary modification is carried in six nos of ESP connected with induration furnace to take care of the Particulate matter emission from all the stacks of operational 12 MTPA Pellet Plant (PP1 and PP-02 of 6 MTPA each). Six nos of wet scrubbers are attached to feed end, discharge end and HLSV and bag filters are attached to additive grinding units. Emission is maintained less than 30 mg/Nm3. Particulate matter is monitored by NABL accredited laboratory and it comes within 21 mg/Nm3 to 24.8 mg/Nm3.
iii.	Water requirement for the project after expansion (852 m3/hr) shall be met from water recovered from iron ore slurry and Taladanda Canal. Ground water abstraction shall not be permitted.	Water requirement is fulfilled from water recovered from iron ore slurry and Taladanda Canal after expansion of the project.
iv.	The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of MoEF&CC.	AMNS has deposited Rs. 357.781 Crore in State Forest Department for the purpose of implementation of various activities within the project impact area in Mangrove Forest Division (WL), Rajnagar. Site specific conservation plan and its implementation status have been received from Divisional Forest Officer, Mangrove Forest Division (WL) Rajnagar vide letter No. 7144/1F-Acct-45/2023 dated 24th November 2023.
v.	Fugitive emissions at workplace shall be monitored monthly and report furnished to the concerned Regional Office of MoEF&CC.	Fugitive emissions at workplace is monitored monthly and report is submitted to OSPCB on monthly basis and furnished to the Regional Office of MoEF&CC on half yearly basis.
vi.	40% total land shall be covered under green belt development. This includes green belt	Total Pellet Plant area is 54.69 Ha i.e 135.14 Ac. Plantation programme has been taken

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	development of 20-meter-wide towards Udayabata Village which is 600 m from the plant boundary. In addition to the 40% greenbelt mentioned above, green cover shall be developed in 16 acres of buffer area created between plant boundary and Mahanadi River as committed by the project proponent.	under green belt development plan and total plantation covered area is 21.95 Ha i.e 40.1% of total plant area of 54.69 Ha with total 59200 numbers of saplings. In F.Y 2023-24, 5000 nos of saplings have been planted in addition to earlier reported 54200 saplings to fill the gap in existing plantation cover area. Local species such as Neem, Radha Chuda, Chattiyana, Kadamba, Karanja, Spathodia, Patoli, Badam, Champa, Mango, Jamun, Mahagoni, Sishoo have been planted as consultation with DFO.
vii.	Project proponent shall switch over to Natural Gas fuel from LSHS/LDO by December 2022.	CTE obtained from OSPCB for Natural gas fuel in Pellet Plant 1 & 2 and Installation work has been completed. CTO application submitted to OSPCB and after obtaining CTO Natural gas fuel will be taken in line.
viii.	Monitoring of the compliance of Environmental Clearance conditions shall be carried out by a third party and report shall be submitted to the Regional Office of the MoEF&CC.	Work order is given for NABAT Accredited third party for monitoring of the compliance of Environmental Clearance conditions and report is being submitted to the Regional Office of the MoEF&CC.

B. General Conditions:

Sl. No.	Conditions	Compliance Status
	I. Statutory compliance:	
i.	The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ consent to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts / Rules / Subordinate legislations etc., as may be applicable to the project.	Noted and strictly followed.
	II. Air quality monitoring and preservation	
i.	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	One 24x7 continuous emission monitoring system of Forbes Marshall make for PM and Yokogawa make for gaseous monitoring has been installed at process stacks to monitor stack emission. . 03 nos of CAAQMS systems have already installed in Pellet Plant. Another 02 nos of Continuous Ambient Air Quality Monitoring Station (CAAQMS) have already been procured and materials dispatched at plant site. After completion of civil work it will be installed with respect to standards prescribed in Environment (Protection) Rules 1986. The CEMS and CAAQMS are connected to SPCB and CPCB

		online servers and these systems are calibrated from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
ii.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	Appropriate Air Pollution Control (APC) system are provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards. 1. Electrostatic precipitator of Thermax make has been installed in induration furnace and connected to a concrete chimney. 2. Wet scrubber has been installed in Feed end and discharge end of induration furnace, Hearth layer Separation unit and individually connected to MS chimney. 3. Bag filters have been attached to Ball Mill and Roll Mill of Additive Grinding Mill. 4. Another bag filters are attached to Bentonite Mixing Bin, Limestone storage Bin, Limestone Mixing Bin and Mixer Bin to control fugitive emissions. 3. Dry fog system, fog canon and sprinkler are installed at covered product and raw material conveyor and stacker and reclaimer area for raw material and product storage location.
iii.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	Super sucker vacuum cleaner is deployed for shop floor and roofs and vacuum based road sweeping machine is deployed for cleaning of plant roads.
iv.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Leakage detection and mechanized bag cleaning facilities are provided for better maintenance of bags.
v.	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.	Recycle and reuse is carried for iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process.
vi.	The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.	Iron ore received in the form of slurry from our Beneficiation plant for which dust generation is minimized. Covered transportation and conveying of remaining ore, coal and other raw material are provided to prevent spillage and dust generation.
vii.	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.	Ventilation system for adequate air changes is designed as per prevailing norms for all tunnels, motor houses, Oil Cellars.

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	III. Water quality monitoring and preservation	
i.	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Ground water quality is monitored every month through NABL and MoEF recognized laboratory. CAPEX proposal has been approved and budget allocated for Installation of sufficient numbers of piezometers/wells. Procurement is under process.
ii.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	Sewage Treatment Plant of capacity 15 KL is provided for treatment of domestic waste water and to meet the prescribed standards. Monthly monitoring and analysis is carried out by NABL Laboratory treated water quality is well within the prescribed standard.
iii.	The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.	Not applicable as Rolling mill is not established.
iv.	Garland drains and collection pits shall be provided for each stockpile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface runoff.	Garland drains and collection pits are provided for each stockpile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface runoff.
	IV. Noise monitoring and prevention	
i.	Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Noise quality is monitored every month as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard is submitted to OSPCB on monthly basis and Regional Officer of the Ministry on six-monthly basis. Noise level ranges from 39.5 dB to 72.6 dB at day time and 55.5 dB to 65.4 dB at night time.
	V. Energy Conservation measures	
i.	Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.	LED lights provided at everywhere for energy conservation. Solar energy adoption feasibility study is carried and CAPEX proposal submitted for approval of the solar project.
	VI. Waste management	
i.	Used refractories shall be recycled as far as possible.	Used refractories are provided to agency for recycle.
ii.	Kitchen waste shall be composted or converted to biogas for further use.	Kitchen waste is composted in vermicomposting pit. CAPEX approval is taken for organic composting machine and procurement process is going on.
	VII. Green Belt	
i.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.	GHG emissions inventory for the plant is prepared internally. For reduction of GHG emissions furnace oil will be replaced by Natural Gas. Natural gas plant installation work is completed and waited for CTO. for

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		reduction of the same including carbon sequestration including plantation, Carbon sequestration study of trees is going on by competent agency for existing green belt. Report is awaited.
	VIII. Emergency preparedness	
i.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan has been approved and implemented.
ii.	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	Heat stress analysis for the workmen who work in high temperature work zone has been carried out internally and Personal Protection Equipment (PPE) provided accordingly as per the norms of Factory Act.
iii.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	Occupational health surveillance of the workers are carried on a regular basis and records maintained as per the F & B guideline.
	IX. Environment Management	
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.	Noted and complied with.
ii.	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and /or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	Environmental policy has been laid down and approved by Board of Directors.
iii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Environmental Cell both at the project and company head quarter level, with qualified personnel has been set up under the control of senior Executive, who is reporting directly to the head of the organization.
	X. Miscellaneous	
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	The environmental clearance granted for project has already published in the local newspaper Dharitri and New Indian express (Odisha edition) on 18.08.2021.

ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Submitted when EC received..
iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	It is under implementation.
iv.	The project proponent shall monitor the criteria pollutants level namely, PM10, NOx, SO2, (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	The criteria pollutants level namely, PM10, NOx, SO2, (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects are monitored through NABL laboratory and through online monitoring systems and online data displayed at the main gate for public information. Putting the above data in company website is under implementation.
v.	The project proponent shall submit six-monthly reports on the status of the of compliance the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	Noted and complied. Six monthly compliance report submitted before the due date in MOEF & CC office and website also.
vi.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Environmental statement in Form-V has been submitted to SPCB before 30th September of every year for preceding financial year. Last Annual statement submitted vide letter No. AMNS/45/2023 dated 28.09.2023.
vii.	The project proponent 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, commencing the land development work and start of production operation by the project.	Complied. CTE and CTO obtained and production commenced in the month of September 2021.
viii.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Noted and complied. Summary of the CSR report from Apr 23 to Sept 23 is attached as **Annexure 1.**
ix.	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).	It is followed.

x.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Agreed with.
xi.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted.
xii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted.
xiii.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/ monitoring reports.	Agreed to extend all the cooperation from our organization.
xiv.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Agreed with.

EC Title:

Environmental Clearance of 60 MW (Phase-I) Captive Power Plant of ArcelorMittal Nippon Steel India Limited, Paradeep

EC clearance No & Date:

EC obtained from SEIAA, Orissa vide letter no. SEIAA/219/ENV, dated 16.04.2011

STIPULATED CONDITIONS:

Sl No.	CONDITIONS	COMPLIANCE STATUS
1	The applicant (project proponent) will take necessary measures for prevention, control and mitigation of air pollution, water pollution, noise pollution and land pollution including solid waste management as mentioned by him in Form-I, Final EIA reports and Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.	Necessary measures like dust extraction system and dust suppression system are implemented to prevent air pollution. Process waters and effluents are being treated and then recycled for green belt purposes. Ensured no water discharge to outside. Online monitoring systems installed. Regular monitoring of air and water quality at site being done.
2	The applicant will take necessary steps for socio-economic development of the people of the area on need-based assessment for providing employment, education, healthcare, drinking water and sanitation, road and communication	Necessary requirements like employment, education, health care, drinking water and sanitation, road and communication facilities etc. are provided for social development of the people.

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	facilities etc. after a detailed primary socio-economic survey.	
3	The applicant will comply to the points, concerns and issues raised by the people during public hearing on 24thJanuary, 2010 in accordance with the commitments made by him thereon.	Complied.
4	The applicant will take statutory clearance / approval /permissions from the concerned authorities in respect of his project as and when required.	We have obtained Consent to Establish & Consent to Operate from SPCB, Odisha, Factory License, AAI clearance, Petroleum storage clearance. Authorization for Hazardous waste management & disposal clearance and Labour License.
5	For post environmental clearance monitoring, the applicant will submit half-yearly compliance report in respect of the stipulated terms and conditions of Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa on 1st June and 1st December of each calendar year.	Half-yearly compliance report is being submitted to SEIAA on or before 1st June and 1st December every year.
6	Land acquisition and transfer to EPOL should be complete in all respects before start of construction.	Land is transferred in the name of ArcelorMittal Nippon Steel India Ltd (AMNS) after the acquisition by AMNS.
7	High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50mg/Nm^3	Electrostatic Precipitators (ESP) of 99.9% efficiency, having 5 field (4 operational and 1 standby) are installed and ensured that the particulate emission is lying within the limit of 50 Mg/Nm3.
8	Excess water along with storm water during monsoon should not be discharged into the surrounding low lying area. The storm water shall be stored in reservoir and after treatment shall be used for dust suppression.	Ensured no excess water including storm water is being discharged into the surrounding low laying area. The storm water is stored in settling pond and the treated storm water is being utilized for dust suppression & greenbelt development.
9	The storm water during monsoon will be collected in a pond and after appropriate treatment shall be stored in a reservoir for use in plantation, dust suppression etc. at no point of time the water will be discharged to surrounding areas.	Run off pit/pond is presently storing the storm water for re-use in plantation and dust suppression during non-monsoon period.
10	Under no circumstances the process water shall be discharged to river Mahanadi. It should be properly treated, stored and 100% recycled in the process.	Process water from Boilers, turbine Halls & DM plant are being sent to Effluent treatment plant (Capacity 20 M3/hr). 100% recycling in the process is being ensured.

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11	The DOWR, GoO may be appraised of the allocation of required amount of water from ESOL to EPOL and the purpose of use other that already approved. A clearance to this effect may be produced before start of construction activity.	Filtered slurry water from Pellet plant of ArcelorMittal Nippon Steel India Limited is being used by Captive Power Plant for day-to-day Operation. However, ArcelorMittal Nippon Steel India Limited has permission from the Dept. of Water Resources, GoO for drawl of water from Taladanda Canal @ 3550 m3/hr, which is used only in case of emergency.
12	No ground water shall be extracted for the project work at any stage.	No ground water is being extracted, rather we are using filtered slurry water from Pellet Plant, AMNSI Paradeep.
13	Details of fly ash utilization including low land filling. Long term leaching of harmful trace metals, especially in contact with higher saline environment has not been ensured yet. Therefore 100% utilization should be implemented as per fly ash notification for other uses like bricks, cement filter, building block etc.	100% fly ash is supplied to nearby brick manufacturers. Impervious lined ash pond is designed by NIT Rourkela to store fly ash at the time of requirement. We have ensured no harmful parameter in the ground water test report. Total generation =14306 MT and utilization= 14368 MT (Supplied to Bricks manufacturing units) and 62 MT utilized from previous year stock.
14	The technical specification of AFBC system, lime requirement along with point of injection into the bed, peak temperature of combustion, SO2 and NOx emission potential etc. from the manufacturer to ensure the pollution potential (both qualitative and quantitative) of the proposed project with respect to bed ash, fly ash, effluents, emissions etc. to be submitted to SEIAA before commissioning of the plant.	Technical Specifications of AFBC system, lime injection system, SO2 and NOx emission potential are submitted.
15	Storing of unutilized ash in a pond, filling up of low lying areas, use in road construction etc. should be as per Notification issued by MOEF for fly ash utilization and amended in 2009.	100% ash is being utilized and provided to local brick manufacturers.
16	The proponent shall treat the flue gas through Flue Gas De-sulfurization (FGD), if SO2 emission level exceed the prescribed norm.	The ground level concentration of SO2 in the impact area of the proposed power plant is within the prescribed norms by using low Sulphur content coal having Sulphur content around 0.35%.
17	Adequate dust extraction system such as cyclones / bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Dust extraction system (Bag filters) and Dust suppression systems (High pressure water spraying system) have already been installed in coal handling, ash handling areas and working efficiently.
18	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% fly ash utilization shall be ensured as per fly ash	We have provided necessary silos for storage of ash. Ash is conditioned in ash conditioner and then transported through trucks to local brick

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	notification of MOEF, Govt. of India. Unutilized fly ash and bottom ash shall be stored in the ash pond separately through high concentration slurry disposal method. Mercury levels along with other heavy metals (Pb, Cr, As etc.) should be monitored in the fly ash / bottom ash, leachates and effluents emanating from the ash pond.	manufactures. Ash pond is lined with impervious material and ensured leach test from ash pond. No harmful material found in water samples taken from nearby area.
19	The ash pond should be constructed with impervious lining and ash pond embankment should be stone pitched.	As per the guidelines of fly ash notification we have developed impervious lined ash storage area designed by NIT, Rourkela.
20	The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary. Arrangements shall be made so that effluents and storm water do not get mixed.	The treated effluents are reused completely in the plant for green belt and dust suppression purpose.
21	A sewage treatment plant shall be provided, and the treated sewage shall be used for raising greenbelt plantation.	Complied. The treated sewage water is being used for greenbelt.
22	Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and detail shall be furnished to the SEIAA, Orissa.	Run off pit/pond is developed to store run off water from roof top. Same is being used during non-monsoon period for wheel washing station and green belt development.
23	Adequate safety measures shall be provided in the plant area to check / minimize spontaneous fires in coal yard, especially during summer season. Details of these measures to be taken along with location plant layout shall be submitted to the SEIAA, Orissa.	Water sprinkling systems provided and the coal is stored in compacted form to avoid air ingress and thereby minimize the spontaneous fires. Additionally, height of the coal stack is being maintained to ensure safety.
24	Storage facilities for auxiliary liquid fuel such as LDO and / HFO / LSHS shall be made in the plant area where risk is minimum. On site and offsite Disaster Management Plans shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in the Disaster Management Plan (DMP). Sulfur content in the liquid fuel will not exceed 0.5%.	Storage facility for storing of LDO has been made in the area having minimum risk. Risk assessment has also been done in EIA study and an on-site emergency plan has been prepared & duly approved in the office of Director of Factories, Odisha. Periodic mock drills conducted in presence of govt. authorities & nearby industries and report submitted.

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25	Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained, and half yearly reports shall be furnished to the SEIAA, Orissa.	Regular monitoring of ground water is being carried out and records maintained. Monitoring parameters are found within the desired limit.
26	A green belt of adequate width and density preferably with local species along the periphery of the plant & alongside roads etc. shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green cover. The project proponent shall ensure proper maintenance of green belt throughout the year & for this purpose they may engage professionals in this field for creation and maintenance of the green belt. An action plan for this purpose shall be prepared accordingly and submitted to the SEIAA, Orissa.	Green belt is developed by planting local species of Radhachuda, karanj, sishoo, mehgani, chakunda, etc. Also fruit bearing trees like mango, jackfruit, chikoo, guava, are planted surrounding plant. More than 36500 saplings were planted inside the plant area of around 36.5 acres of land. The survival rate is more than 95%.
27	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Necessary first aid and sanitation arrangements have already been made to meet the requirements of the contract workers.
28	Noise levels emanating from turbines and air compressors shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipments like earplugs / earmuffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy / less noisy areas.	The turbine and air compressors are housed in suitable acoustic enclosures. Noise levels outside the enclosures does not exceed the stipulated standards. The necessary PPEs such as ear plugs and earmuffs are provided to the employees working in high noise areas. Periodic medical examination of the people working in these areas is undertaken.
29	Regular monitoring of ground level concentration of SO2 NOx, RSPM, (PM10 & PM2.5), etc. shall be carried out in the impact zone and records to be maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB, Orissa.	We have 03 no.s manual and portable monitoring stations arranged for monitoring of ground level concentration of SO2 NOx, RSPM, (PM10 & PM2.5), etc. in concurrence with the statutory requirements. Sampling and analysis is being done by NABL accredited and CPCB authorized party. Monthly reports are being submitted to OSPCB. Monitoring parameters are found within the desired limit.
30	Provision shall be made for housing of construction laborers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary	Infrastructure has already developed for the existing & proposed project (like canteen, toilet, labour colony, STP, drinking water.) inside the Captive power plant premises.

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	structures to be removed after the completion of the project.	
31	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Environment Management Cell is formed. Member list is submitted at Regional Office, Paradeep.
32	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to the appropriate authorities.	Half yearly report for the period of April-September and October-March is being submitted on 1st December & 1st June respectively.
33	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year wise expenditure should be reported.	The project cost includes the capital cost of all the environmental protection measures which has been budgeted separately. These funds is being used only for the implementation of the environmental protection schemes.
34	The need of the local people should be appropriately addressed in the CSR activities to be undertaken by the project proponent in the area. An action plan in this regard should be prepared and submitted to SEIAA, Orissa.	A well-developed CSR team at AMNSI is taking care of all CSR activities. A detailed CSR plan has been prepared and has been implemented / ongoing. **(CSR report attached as Annexure-1)**
35	The above-mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment Protection (EP) Act, 1986.	All the conditions stipulated above are being complied.

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EC Title:

Environmental clearance of 60 MW (Phase-II) Captive Power Plant of ArcelorMittal Nippon Steel India Limited, Paradeep.

Clearance No & Date:

(EC obtained from SEIAA, Orissa vide letter no. 6748/SEIAA, dated 29.05.2019 and File no. SIA/OR/THE/213436/2021, Dated 01.12.2022)

ADDITIONAL STANDARD EC CONDITIONS FOR THERMAL POWER SECTOR:

A. STATUTORY COMPLIANCE		
Sl.	**DETAILS OF THE CONDITIONS**	**STATUS**
1	Emission Standards for Thermal Power Plants as per Ministry's Notification S.O. 3305(E) dated 07.12.2015, G.S R. 593(E) dated 28.06.2018 and as amended from time to time shall be complied.	Emission standards for Thermal Power Plants as per Ministry's notifications shall be complied.
2	Part C of Schedule- II of Municipal Solid Waste Rules, 2016 dated 08.04.2016 as amended from time to time shall be complied for power plants based on Municipal Solid Waste.	Will be complied.
3	MoEF & CC Notification G.S.R 02(E) dated 02.01.2014 as amended time to time regarding use of raw or blended or beneficiated /washed coal with ash content not exceeding 34% shall be complied with, as applicable.	Shall be complied.
4	MoEF & CC Notifications on Fly Ash Utilization S.O. 763(E) dated 14.09.1999, S.O 979(E) dated 27.08.2003, S.O 2804(E) dated 03.11.2009, S.O 254(E) dated 25.01.2016 as amended from time to time shall be complied.	Will be complied.
5	The recommendation from standing Committee of NBWL under the Wildlife (Protection) Act, 1972 should be obtained, if applicable.	The industry premises is not coming under any forest range and reserved forest, hence Wildlife (Protection) Act, 1972 is not applicable.
6	No Objection Certificate from Ministry of Civil Aviation be obtained for installation of requisite chimney height and its siting criteria for height clearance.	No Objection Certificate obtained on 08.08.2019
7	Groundwater shall not be drawn during construction of the project. In case, ground water is required to be drawn during construction, necessary prior permission to be obtained from CGWA.	Filtered slurry water from Pellet Plant of ArcelorMittal Nippon Steel India Limited, Paradeep is being used for the present phase-I and it will be used for phase-II also. No ground water is being drawn or will be drawn for plant operation.

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Ash content/ mode of transportation of coal:		
1	Any increase of % ash content by more than 1 percent as submitted in application, and /or any change in transportation mode or increase in the transport distance (except for rail) require application for modifications of EC conditions after conducting the incremental impact assessment and proposal for mitigation measures.	Application for modification of EC conditions will be applied if required.
Air Quality Monitoring and Management:		
1	Flue Gas Desulphurization System shall be installed based on Lime/Ammonia dosing to capture Sulphur in the flue gases to meet the SO2 emissions standard of 100 mg/Nm3.	Installation of Ph-2 units is under progress upon getting Consent to Establish clearance dated 3rd December 2011 from State Pollution Control Board, Odisha and Environment clearance dated 17th November 20211 from MoEF&CC. The design and supply of boilers and associated equipments were made in the year 2011 much earlier than the publication of the MoEF&CC notification dated 07th December 2015.
2	Selective Catalytic Reduction (SCR) system or the Selective Non-Catalytic Reduction (SNCR) system or Low NOX Burners with Over fire Air (OFA) system shall be installed to achieve NOx emission standard of 100nmg/Nm3.	Design furnace temperature is low (about 950 Deg C) to ensure NOx emission falls within the standard limit.
3	Stacks of prescribed height shall be provided with continuous online monitoring instruments for SOx, NOx and Particulate Matter as per provision of extant rules.	Detailed engineering is done and provision for CEMS instruments is also designed therein.
4	Exit velocity of flue gases shall not be less than 20-25 m/s. Mercury emissions from stack shall also be monitored periodically.	Shall be complied.
5	Continuous ambient air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM_{10}, PM2.5, SO2, NOx within the plant area at least at one location. The monitoring of other locations (at least three locations outside the plant area covering upwind and downwind directions at an angle of 120°C each) shall be carried out manually.	02 Nos CAAQMS are installed surrounding Captive Power plant at two different locations. Addition to that, 03 nos manual ambient air quality monitoring stations are installed at an angle of 120° each, and regular monitoring is being carried out by NABL agency. Reports are being submitted at OSPCB on monthly basis.
6	Adequate dust extraction / suppression system shall be installed in coal handling, ash handling areas and material transfer points to control fugitive emissions.	Coal yard & ash pond is common for both Phase-I and Phase-II. Entire coal yard and ash pond is surrounded by 3 tier of trees, water sprinklers, and. Moveable sprinklers are installed at unloading points, surrounding coal yard and ash pond to control the dust emissions. Dust Extraction System and Dust Suppression System are already operational inside the captive power plant to control fugitive dust emission.

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7	Appropriate Air Pollution Control measures (DES/DSS) be provided at all the dust generating sources including sufficient water sprinkling arrangements at various locations viz. roads, excavation sites, crusher plants, transfer points, loading and unloading areas, etc.	Dust Extraction System and Dust Suppression System are already operational inside the captive power plant to control fugitive dust emission. High jet sprinklers are installed at unloading points, surrounding coal yard and ash pond to control the dust emissions.
Noise pollution and its control measures:		
1	The Ambient Noise levels shall meet the standards prescribed as per the Noise Pollution (Regulation and Control) Rules, 2000.	Air compressors are housed in suitable enclosures. Noise levels outside the enclosures does not exceed the stipulated standards. The necessary PPEs such as ear plugs and earmuffs are provided to the employees working in high noise areas. Periodic medical examination of the people working in these areas is undertaken.
2	Persons exposed to high noise generating equipment shall use Personal Protective Equipment (PPE) like earplugs/ ear muffs, etc.	Necessary PPEs such as ear plugs and earmuffs are provided to the employees working in high noise areas. Trainings are provided to workers/employees on regular basis on noise pollution and its control. Posters are printed on entrance of high noise areas to make an attention to people while entering high noise areas.
3	Periodical medical examination on hearing loss shall be carried out for all the workers and maintain audiometric record and for treatment of any hearing loss including rotating to non-noisy/ less noisy areas.	Periodic medical examination of the people working in noisy areas are being carried out at our first aid center and records are maintained. Regular rotation of people from high noise to low noisy area to prevent continuous exposure to noise and there by minimizes the effect on them.
Human Health Environment:		
1	Bi-annual Health check-up of all the workers is to be conducted. The study shall take into account chronic exposure to noise which may lead to adverse effects like increase in heart rate and blood pressure, hypertension and peripheral vasoconstriction and thus increased peripheral vascular resistance. Similarly, the study shall also assess the health impacts due to air polluting agents.	Annual health check-up is being carried out every year and addition to that special health checkup for pulmonary, cardiology, ultrasonography and pathological monitoring being conducted for workers/employees working at hazardous areas. Regular & Periodical health check-up is being carried out for employees and workers working in hazardous areas.
2	Baseline health status within study area shall be assessed and report be prepared. Mitigation measures should be taken to address the endemic diseases.	Pest control application is being done at regular basis to restrict the growth of insects, bacteria and fungi. Drains are covered and being cleaned periodically with application of germicide.

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3	Impact of operation of power plant on agricultural crops, large water bodies (as applicable) once in two years by engaging an institute of report. The study shall also include impact due to heavy metals associated with emission from power plant.	Shall be complied.
4	Sewage Treatment Plant shall be provided for domestic wastewater.	Sewage Treatment plant is already in operation.
Water quality monitoring and Management:		
1	Induced /Natural draft closed cycle wet cooling system including cooling towers shall be set up with minimum Cycles of Concentration (COC) of 5.0 or above for power plants using fresh water to achieve specific water consumption of 2.5 m3 /MWhr. (Or) Induced /Natural draft open cycle cooling system shall be set up with minimum Cycles of Concentration (COC) of 1.5 or above for power plants using sea water.	Shall be complied.
2	In case of the water withdrawal from river, a minimum flow 15% of the average flow of 120 consecutive leanest days should be maintained for environmental flow whichever is higher, to be released during the lean season after water withdrawal for proposed power plant.	we are using filtered slurry water from Pellet Plant, ArcelorMittal Nippon Steel India Limited for Phase-I operation and further we will be using the filtered slurry water for upcoming Phase-II operation.
3	Records pertaining to measurements of daily water withdrawal and river flows (obtained from Irrigation Department/ Water Resources Department) immediately upstream and downstream of withdrawal site shall be maintained.	We will be using the filtered slurry water from Pellet Plant, ArcelorMittal Nippon Steel India Limited.
4	Regular (at least once in six months) monitoring of groundwater quality in and around the ash pond area including presence of heavy metals (Hg. Cr. As, Pb, etc) shall be carried out as per CPCB guidelines. Surface water quality monitoring shall be undertaken for major surface water bodies as per the EMP. The data so obtained should be compared with the baseline data so as to ensure that the groundwater and surface water quality is not adversely impacted due to the project & its activities.	The ground water and surface water quality are being monitored regularly by the authorized party of OSPCB and is being submitted accordingly. As per the observation from the reports, groundwater and surface water quality is not impacted due to the project & its activities.
5	The treated effluents emanating from the different processes such as DM plant, boiler blow down, ash pond /dyke, sewage, etc. conforming to the prescribed standards shall be re-circulated and reused. Sludge/rejects will be disposed in accordance with the Hazardous Waste Management Rules.	Common Effluent Treatment plant is provided for both Phase-I and Phase-II plants. The water quality at guard pond is monitored round the clock. SPCB and CPCB have online access to these data 24 X 7.
6	Hot water dispensed from the condenser should be adequately cooled to ensure the temperature of the released surface water is not more than 5 degrees Celsius above the temperature of the Intake water.	Will be ensured during operation of Phase-II.
7	Wastewater generation from various sources (viz. cooling tower blow down, boiler blow down, wastewater from ash handling, etc) shall be treated	Common Effluent Treatment plant is provided for both Phase-I and Phase-II plants. The water quality

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	to meet the standards of pH: 6.5-8.5, Total Suspended Solids: 100mg/l: Oil & Grease:20mg/l ; Copper:1 mg/l: Iron: 1 mg/l; Free Chlorine 0.5: Zinc: 1.0 mg/l. Total Chromium: 0.2 mg/l: Phosphate:5.0mg/1	at guard pond is monitored round the clock. SPCB and CPCB have online access to these data 24 X 7.
8	Sewage generation will be treated by setting up Sewage Treatment Plant to maintain the treated sewage characteristics of pH: 6.5-9.0; Bio-Chemical Oxygen Demand (BOD): 30 mg/: Total Suspended Solids: 100 mg/; Fecal Coli forms (Most Probable Number): <1000 per 100 ml.	Sewage Treatment plant is already in operation.
Risk Mitigation and Disaster Management:		
1	Adequate safety measures and environmental safeguards shall be provided in the plant area to control spontaneous fires in coal yard, especially during dry and humid season.	Coal yard is common for both Phase-I and Phase-II. Entire coal yard is surrounded by fire water monitors and fully pressurized Fire Hydrant line with continuous running of Jockey pump round the clock 24 X 7. Standby fire pumps including Emergency Diesel engine fire pump are also provided for uninterrupted fire water supply in case of emergency. Water is sprinkled on top layers of coal to reduce the coal dust as well as minimize fires.
2	Storage facilities for auxiliary liquid fuel such as LDO and HFO/ LSHS shall be made as per the extant rules in the plant area in accordance with the directives of Petroleum & Explosives Safety Organization (PESO). Sulphur Content in the liquid fuel should not exceed 0.5%.	Common storage facility is provided for both Phase-I and Phase-II with possession of valid license from Petroleum & Explosives Safety Organization (PESO). Sulphur content less than 0.5% is being ensured.
3	Ergonomic working conditions with First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	24 x 7 First aid facility provided at main gate and sanitation facility is provided around the plant for all the workmen working inside the factory premises.
4	Safety management plan based on Risk Assessment shall be prepared to limit the risk exposure to the workers within the plant boundary.	All the work plan is being associated with HIRA sheet (Hazard identification and risk assessment) to limit the risks with necessary precautions. Addition to above following measures are being carried at site on periodically. Safety management plan like daily toolbox talk & various HSE training to workmen, Audits on critical areas, reporting & analyzing near miss, unsafe conditions & its mitigation, ensuring safety PPEs during height & hot works activities, demo practices at site, ensuring permit to work and LOTO before any work start at site. Safety committee meetings are conducted on every month to discuss issues and proactive measure on safety.

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5	Regular mock drills for on-site emergency management plan and integrated Response System shall be developed for all kind of possible disaster situations.	Periodic mock drills as scheduled by Govt. of Odisha is being conducted. Last Mock drill was conducted on 30th November 2022.
Green belt and Biodiversity conservation:		
1	In-situ / ex-situ Conservation Plan for the conservation and augmentation of flora and fauna within the project area and in a belt of 5 kms radius from the project site and should be prepared and implemented by the project proponent after getting the same vetted by the PCCF, Odisha.	As the Environment Clearance is expired on 16th November 2021, AMNS will submit fresh application and as per the directions in the ToR action will be taken.
2	Suitable screens shall be placed across the intake channel to prevent entrainment of life forms including eggs, larvae, juvenile fish. etc, during extraction of seawater	We are using filtered slurry water supplied by pellet plant, ArcelorMittal Nippon Steel India Ltd. No sea water is being used in the power plant.
Waste Management:		
1	Solid waste management should be planned in accordance with extant Solid Waste Management Rules, 2016.	Will be complied.
2	Toxicity Characteristic Leachate Procedure (TCLP) test shall be conducted for any substance, potential of leaching heavy metals into the surrounding areas as well as into the groundwater.	The leach test and ground water quality is being carried out quarterly & monthly respectively for monitoring of ground water quality. No heavy metal is found leached with ground water.
3	Ash pond shall be lined with impervious liner as per the soil conditions. Adequate dam / dyke safety measures shall also be implemented to protect the ash dyke from getting breached.	The present ash pond is designed with impervious lining of bentonite and that detailed engineering is done by NIT Rourkela and approved by NIT Rourkela to ensure all environmental safety and measures against hazards.
4	In case of waste-to-energy plant, major problems related with environment are fire smog in MSW dump site, foul smell and impacts to the surrounding populations. Therefore, the following measures are required to be taken up: (i) Water hydrant at all the dumpsites of MSW area to be provided so that the fire and smog could be controlled. (ii) Sprayer like microbial consortia may be provided for arresting the foul smell emanating from MSW area.	Not Applicable
Monitoring of Compliance:		
1	Environmental Audit of the project be taken up by the third party for preparation of Environmental Statement as per Form-V & Conditions stipulated in the EC and report be submitted to the Ministry.	Shall be complied.

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2	Resettlement & Rehabilitation Plan as per the extant rules of Govt. of India and respective State Govt. shall be followed, if applicable.	Not applicable.
3	Energy Conservation Plan to be implemented as envisaged in the EIA/EMP report, Renewable Energy Purchase Obligation as set by MoP/State Government shall be met either by establishing renewable energy Power Plant (such as solar, wind, etc) or by purchasing Renewable Energy Certificates.	Will be complied.
4	Monitoring of Carbon Emissions from the existing power plant as well as for proposed power project shall be carried out annually from a reputed Institute and report be submitted to the Ministry's Regional Office, Bhubaneswar.	Shall be complied.
5	Energy and Water Audit shall be conducted at least once in two years and recommendations arising out of the report should be followed. A report in this regard shall be submitted to Ministry's Regional Office.	Shall be complied.
6	Environment Cell (EC) shall be constituted by taking members from different diversions, headed by a qualified person on the subject, who shall be reporting directly to the Head of the Project.	An Environmental Cell has been formed and is reporting directly to Head of Project.
7	The project proponent shall (Post-EC Monitoring) a. Send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government. b. Upload the clearance letter on the web site of the company as a part of information to the general public. c. Inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that widely circulated in the region of which one shall be in the vernacular language 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, Forest and Climate Change (MoEF & CC) at http//parivahan.nic.in. d. Upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and update the same periodically.	Complied. Complied. Complied. Being complied. Complied.

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	e. Monitor the criteria pollutants level namely PM (PM10 & PM2.5 in case of ambient AAQ), SO NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company. f. Submit six monthly reports on the status of 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 MoEF & CC, the respective Zonal Office of CPCB and SPCB. g. Submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environmental (Protection) Rules, 1986, as amended subsequently and put on the website of the company: h. Inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project and the date of commencement of the land development work.	Being complied. Complied. Complied.
Corporate Environmental Responsibility (CER) activities:		
1	CER activities will be carried out as per OM No 22-65/2017-1A.II dated 01.05.2018 or as proposed by the PP in reference to Public Hearing or as earmarked in the WINAMP report along with the detailed scheduled of implementation with appropriate budgeting.	Separate Budget is assigned every year towards environmental protection. Various activities are planned every year like reduction of carbon emission by reducing carbon related fuels, increasing more greenbelt surround industry, dust emission control by ESP, DES, DSS. Water Sprinkling on flying dust.
Other Specific Conditions:		
1	The extension of validity of environmental clearance dt. 17.11.2011 is granted with a condition that "By October, 2019, the Project Proponent has to submit full scale compliance report on all EC conditions to SEIAA, failing which the EC is able to be Summarily revoked".	Already submitted.
2	The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by him in Form 1, Final EIA reports and	Necessary Measures like dust extraction system and dust suppression system is implemented to prevent air pollution. Process waters and effluents are being treated and then recycled for green Belt Purposes. Ensured no water discharge to surface. Online

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	Environment Management Plan (EMP) in compliance with the prescribed statutory norms and standards.	monitoring systems installed. Regular monitoring of air and water quality at site being carried out. Solid waste like fly ash are being utilized in brick manufacturing by local brick manufacturers.
3	The applicant will take necessary steps for socio-economic development of the people of the area on need-based assessment for providing employment, education, health care, drinking water and sanitation, road and communication facilities etc. after a detailed primary socio-economic survey.	Necessary requirements like employment, education, health care, drinking water and sanitation, road and communication facilities etc. are provided for social development of the people.
4	The applicant will comply to the points, concerns and issues raised by the people during public hearing on 27.07.2011 In accordance with the commitments made by him thereon.	Being complied.
5	The applicant will take statutory clearance/ approval/ permissions from the concerned authorities in respect of his project as and when required.	Agreed.
6	The proponent will submit half -yearly compliance report on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by email) and shall also upload the compliance report in the MoEF & CC website to the State Environmental Assessment Authority (SEIAA), Odisha, SPCB & Regional Office of the Ministry of Environment & Forest, Odisha on 1st June and 1st December of each Calendar year.	Half yearly compliance report is being submitted in June and in December every year.
7	Land acquisition and transfer to EPOL should be complete in all respects before start of construction.	Completed.
8	High efficiency Electrostatic Precipitators (ESPs) shall be installed in each unit to ensure that particulate matter (PM) emission to meet the stipulated standards of 30mg/Nm3	Our ESP is designed with 5 field (4 operational and 1 standby). PM emissions shall be complied.
9	Excess water along with storm water during monsoon should not be discharge into the surrounding low lying area. The storm water shall be stored in reservoir and after treatment shall be used for dust suppression.	Rainfall in the area is high and avenue for water utilization of this large quantity is not available. However, storm water reservoir is developed for nominal rain and the same is routed through ETP and is being utilized for dust suppression and green belt during non-monsoon season.
10	The storm water during monsoon will be collected in a pond and after appropriate treatment shall be stored in a reservoir for use in plantation, dust suppression etc. At no point of time the water will be discharged to surrounding areas.	Rainfall in the area is high and avenue for water utilization of this large quantity is not available. However, storm water reservoir is developed for nominal rain and the same is routed through ETP and is being utilized for dust suppression and green belt during non-monsoon season. No water is being discharged to outside boundary.

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11	Under no circumstances the process water shall be discharged to river Mahanadi. It should be properly treated, stored and 100% recycled in the process.	Shall be ensured.
12	The DOWR GoO may be appraised of the allocation of required amount of water from ESIL to EPOL and the purpose of use other that already approved. A clearance to this effect may be produced before start of construction activity.	Filtered slurry water from Pellet plant of ArcelorMittal Nippon Steel India Limited (AMNS, formerly known as ESIL) is being used by Captive Power Plant for day-to-day Operation.
13	No ground water shall be extracted for the project work at any stage.	No ground water is being extracted. Filtered slurry water from Pellet Plant, AMNS- Paradeep is being used.
14	The technical specification of AFBC system, lime requirement along with point of injection into the bed, peak temperature of combustion, SO2 and NOx emission potential etc. from the manufacturer to ensure the pollution potential (both qualitative and quantitative) of the proposed project with respect to bed ash, fly ash, effluent, emissions etc. to be submitted to SEIAA before commissioning of the plant.	Technical Specifications of AFBC system, lime injection system, SO2 and NOx emission potential are submitted.
15	Fly ash shall be collected in dry and ash generated shall be used in phased manner as per provisions of the Notification on Fly Ash Utilization issued by the Ministry and amendment thereto. By the end of 4 year, 100% fly ash utilization should be ensured. Unutilized ash shall be disposed off in the ash pond in the form of High Concentration Slurry. Mercury and other heavy metals (As, Hg, Cr, pb, etc) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. Fly ash utilization details shall be submitted to concerned Regional Office along with the six-monthly compliance reports and utilization data shall be published on company's website.	As per the guidelines of fly ash notification we have developed impervious lined ash storage area designed by NIT, Rourkela for the unutilized ash. Fly ash utilization will be complied during operational phase. Ground water test is being carried out every quarter and No heavy metals is being found. Fly ash utilization report is being submitted monthly and annually to regional office a well as to head office of OSPCB.
16	Unutilized ash shall be disposed off in the ash pond in the form of High Concentration Slurry/ Medium Concentration Slurry/ Lean concentration Slurry method. Ash water recycling system shall be set up to recover supernatant water.	Unutilized ash will be stored in ash storage area which is designed by NIT, Rourkela. Additionally long-distance water sprinklers are installed surrounding ash pond for dust suppression.
17	Storing of unutilized ash in a pond, filling up of low lying areas, use in road construction etc. should be as per Notification issued by MoEF for fly ash utilization and amended in 2009.	Shall be complied.

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18	The ash pond should be constructed with impervious lining and ash pond embankment should be stone pitched.	As per the guidelines of fly ash notification, impervious lined ash pond is designed by NIT, Rourkela.
19	The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary. Arrangements shall be made so that effluents and storm water do not get mixed.	The treated effluent water are being reused completely for greenbelt and dust suppression purpose.
20	Rainwater harvesting in and around the plant area shall be taken up to compensate drawl of fresh water. Necessary arrangements for recharge of groundwater shall be undertaken to improve the ground water table in the area. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of issue of this EC order under intimation to SEIAA, Odisha.	Since water table in the area is high, there is no need to have to recharge the ground water table in the area . However rain water harvesting is initiated to collect only the roof top rain water and run off water to store it in a pond to be used in lean season.
21	Adequate measures shall be provided in the plant area to check/ minimize spontaneous fires in coal yard, especially during summer season. Details of these measures to be taken along with location plant layout shall be submitted to the SEIAA Orissa.	Water sprinkling systems provided and the coal is stored in compacted form to avoid air ingress and thereby minimize the spontaneous fires. Additionally, height and length of the coal stacks are being maintained to ensure safety.
22	Storage facilities for auxiliary liquid fuel such as LDO and/HFO/ LSHS shall be made in the plant area where risk is minimum. Onsite and off-site Disaster Management Plans shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in the Disaster Management Plan (DMP). Sulfur content in the liquid fuel will not exceed 0.5%.	Storage facility for storing of LDO has been made in the area having minimum risk. Risk assessment has also been done in EIA study and an on-site emergency plan has been prepared & duly approved in the office of Director of Factories & Boiler. Periodic mock drills conducted in presence of govt. authorities & nearby industries and report submitted. Presently LDO is not being used in CPP.
23	Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained, and half yearly reports shall be furnished to the SEIAA, Orissa.	Regular monitoring of ground water is being carried out and records maintained.
24	A green belt of adequate width and density preferably with local species of plants along the periphery of the factory & alongside roads etc. shall be raised as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green cover with indigenous native tree species in accordance with CPCB guidelines. The project proponent shall ensure proper maintenance of green belt throughout the year & for this purpose they may engaged professionals in this field for creation and maintenance of the green belt. An	Green belt is being developed by planting local species of Radhachuda, karanj, sishoo, mehgani, chakunda, etc. Also fruit bearing trees like mango, jackfruit, chikoo, guava, are planted surrounding plant. More than 36500 saplings were planted inside the plant area of around 36.5 acres of land. The survival rate is more than 95%.

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	action plan for this purpose shall be prepared accordingly and submitted to the SEIAA, Orissa enclosing with six monthly compliance report.	
25	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Necessary first aid and sanitation arrangements have already been made to meet the requirements of the contract workers.
26	Noise levels emanating from turbines and air compressors shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipments like earplug/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy / less noisy areas.	The turbine and air compressors will be housed in suitable enclosed buildings. Noise levels outside the enclosures will not exceed the stipulated standards. The necessary PPEs such as ear plugs and ear muffs are provided to the employees working in high noise areas. Periodic medical examination of the people working in these areas is undertaken.
27	Regular monitoring of ground level concentration of SO2, NOx, RSPM (PM10 & PM2.5) etc. shall be carried out in the impact zone and records to be maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in contention with SPCB, Orissa	2 nos Online monitoring system installed for monitoring of Parameters like SO2, NOx, PM10 & PM2.5 & CO in ambient air. The online feedback is connected to OSPCB. We also have portable stations arranged for monitoring of the same in concurrence with the statutory requirements. Monthly reports are being submitted to OSPCB.
28	Provision shall be made for housing of construction labourers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project	Infrastructure has already developed for the existing & proposed project (like canteen, toilet, labour colony, STP, drinking water.) inside the Captive power plant premises.
29	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Environment Management Cell is formed. Member list is submitted at Regional Office, Paradeep.
30	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to the appropriate authorities.	Half yearly report for the period of April-September and October-March is being submitted before on 1st December & 1st June respectively.
31	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break up. This cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year wise expenditure should be reported.	The project cost includes the capital cost of all the environmental protection measures which has been budgeted separately. These funds are being used only for the implementation of the environmental protection schemes.

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32	The need of the local people should be appropriately addressed in the CSR activities to be undertaken by the project proponent in the area. An action plan in this regard should be prepared and submitted to SEIAA, Orissa.	A well-developed CSR team at AMNSI is taking care of all CSR activities. A detailed CSR plan has been prepared and has been implemented / ongoing. **(Details report attached as Annexure-1)**
33	The above-mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract penal action under the provisions of Environment Protection (EP) Act, 1986.	Shall ensure timely compliance to all the conditions.

For M/s ArcelorMittal Nippon Steel India Ltd.

ARCELORMITTAL NIPPON STEEL INDIA LTD. PARADEEP

Suresha G

Executive Director-Odisha Operations

Encl: Annexure 1 (Copy of CSR report)

AM/NS INDIA

Annexure 1

Half yearly CSR Highlights

(April 2023- September 2023)

ArcelorMittal Nippon Steel india Ltd.

Paradeep

AM/NS INDIA

Thematic Area wise Highlights

Health

- 4877 patients were treated through Mobile Medical Unit.
- National Nutrition Month was observed, and an awareness programme was organized about the importance of nutrition in individual life. Anganwadi workers, ANM workers, adolescent girls and other women and ladies participated in the event.

Education

- Independence Day celebrated in Schools in the presence of School teachers and Children. Refreshment was provided to the around 4000 students of 16 schools and 18 Anganwadi.
- Teachers Day observed with 110 teachers of periphery Schools where 05 teachers were felicitated with Guru Prativa Samman Award for their extra ordinary contribution in the field of Education.

Livelihood and Skill Development

- An award cum felicitation ceremony was organized for the passed-out students from skill center where 142 students were awarded with Certificates.
- Placement drive was organized at Skill center with the help of District employment Officer. A total of 40 students participated in the process.
- 1200 KG of improved Paddy seed was distributed to 47 Farmers of Chakradharpur village of Paradeepgarh Gram panchayat.
- Training of 57 students in 02 new batches has been started at Skill center in IT Help Desk branch.
- Manure support provided to 49 farmers for paddy cultivation in 60 acres of land.
- BAIF has started identification of progressive farmers and base line survey for implementation of SAFAL project.

Environment-

- Mass plantation drive organized on the eve of World Environment Day 2023.

Potable water and Infrastructure Development

- Toilet block construction at Musadia School completed.
- Foundation stone laid for Stadium development at Paradeepgarh.
- Construction and inauguration of toilet block at Musadia UP Sachool completed. Near about 200 students and 10 teaching and non-teaching staffs will be benefitted from the support.
- Baseline survey and land identification for installation of water purifier plant is completed by Water life at site.

Sports and Culture

- AMNS INDIA organized inter village cricket league by taking 10 teams from three-gram panchayats. The three-day long day and night tournament was organized by CSR department under it's flagship project named "UDDAN".

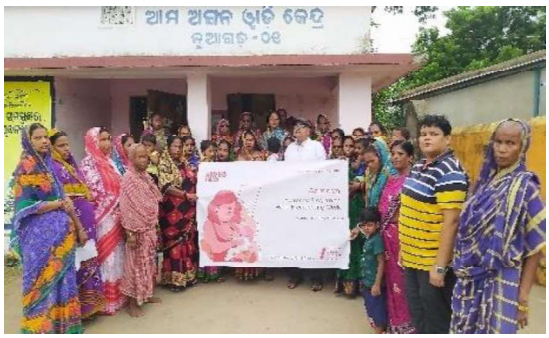
Other initiatives

- Relief support provided to flood affected area in Kujang block. Relief materials like dry rice, cattle feed, Biscuit, Sanitary pad etc. were supported to block administration and near about 500 families got benefited from the support.
- Employee Volunteering Programme organized for windmill making and water cycle drawing by the Employees.

Thematic area updates

Health

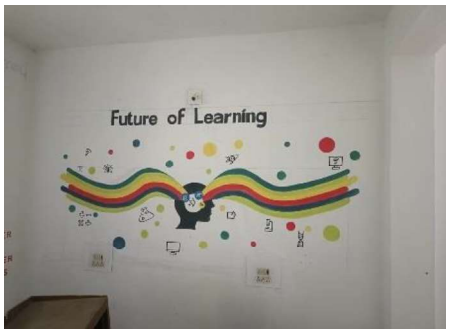
- Total 4877 patients treated in 84 camps through Mobile Medical Unit with Male- 2035, Female- 2842. The patients were supported with diagnosis, free medicine, and consultation. 23 patients have been referred for secondary treatment and 7 home visits are made for bed ridden patients.
- 17 awareness sessions were conducted among villagers about Cold and cough, Hypertension and diarrhoea. cough & cold, mental health and other general health disorder, World Lungs Cancer Day, World breast feeding week, general cold and flu, dysentery & Menstrual Hygiene.
- Organized specialized Gynecology health checkup camp where health checkups of 153 patients were done and 81 patients were treated with gynecology problems.
- Menstrual Hygiene Awareness programme was conducted at Nuagarh in the presence of Anganwadi workers, ANM workers, adolescent girls and other women and ladies.
- National Nutrition Month was observed, and an awareness programme was organized about the importance of nutrition in individual life. Anganwadi workers, ANM workers, adolescent girls and other women and ladies participated in the event.
- World Heart Day was organized at Pipal village where 62 patients underwent a health check up by MMU doctor.

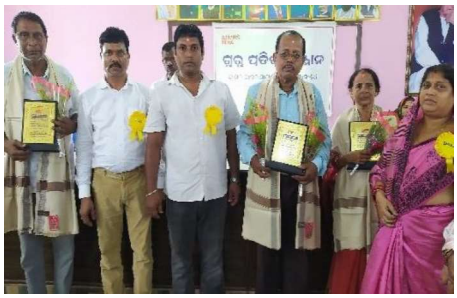


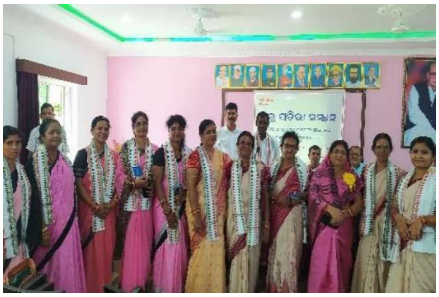
AM/NS INDIA

Education

- Independence Day celebrated in Schools in the presence of School teachers and Children. Refreshment was provided to the around 4000 students of 16 schools and 18 Anganwadi.
- Painting work along with putty completed in 06 Schools for setting up of Digital Pathsala out of 08 Schools.
- Teachers Day observed with 110 teachers of periphery Schools where 05 teachers were felicitated with Guru Prativa Samman Award for their extra ordinary contribution in the field of Education.
- Proposal for development of 50 Anganwadi has been formally approved from Management and undergoing commercial process.







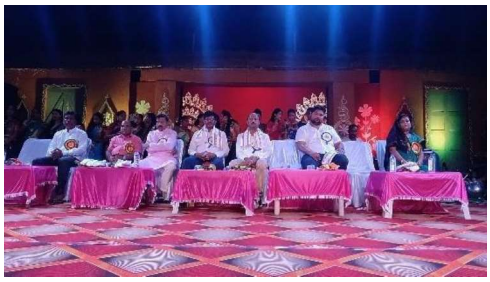
Livelihood and Skill Development

- *Lok Vikas Kendra (LVK)*- In LVK- Tailoring Center at Paradeepgarh village is running with 2 batches having 30 women and girl youth have been continuing their training in current batch. 6 months training completed on 28th of June. Handia 7 trained, Balidia 10 trainees passed.
- 13 Women members Baba Lokanath SHG Paradeepgarh village undertaking the commercial selling of 60kg@150=Rs 9000 Badi Canteens & Hotel in the market to generate additional income for the individual members of the group.3 Teen circles is running with 60 girls of age group 13 to 19 years. The basic objective is to create an association of girl's for awareness generation on different issues and providing opportunities for skills enhancement. Beauty Therapy training was given to the teen circle . Practical demonstration was given by the trainer.
- In digital skilling 100 students in 04 batches have completed Domestic Data Entry Operator training. 55 students in 02 batches on domestic IT help desk have completed

their course. 02 batches of 54 students are continuing their course in domestic IT help desk training.

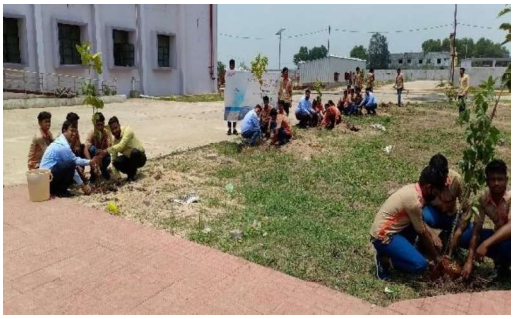
- Old age home at Handia was supported with Dry rations.
- BAIF has started identification of progressive farmers for implementation of SAFAL project.
- Manure support provided to 49 farmers for paddy cultivation in 60 acres of land.
- Baseline survey for implementation of Natural Resource Management Programme by BAIF is in progress.
- Training of 57 students in 02 new batches has been started at Skill center in IT Help Desk
- 3 Teen circles is running with 60 girls of age group 13 to 19 years. The basic objective is to create an association of girl's for awareness generation on different issues and providing opportunities for skills enhancement. Beauty Therapy training was given to the teen circle . Practical demonstration was given by the trainer.
- A Placement drive was organized at Skill center with the help of District employment Officer. Total 40 students participated in the process. Placement agencies like Narayani Motors, Sbi Life insurance, Jagannathpur, SBI life Insurance, Paradeep participated in this placement drive. They made the first-round interview of the students, and 30 shortlisting candidates will undergo practical test and personal interviews in the final selection process.
- 1200 KG of improved Paddy seed was distributed to 47 Farmers of Chakradharpur village of Paradeepgarh Gram panchayat for paddy cultivation in 60 Acres of Agricultural land in this kharif season. This will help the farmers in enhanced production.
- An award cum felicitation ceremony was organized for the passed-out students from skill centre where 142 students were awarded with Certificates. The students who were got placed in different companies shared their success stories which influenced other students also.



Environment-

- On the eve of World Environment Day 2023, 100 saplings were planted in Govt. ITI premises and Awareness was carried out to beat plastic pollution. Debate and essay competitions were also organized among students and successful candidates were rewarded. 50 saplings were also planted inside Biju Memorial Hospital in the presence of the Chief Medical Officer and other staffs.



Infrastructure Development-

- Construction of foundation and installation of Solar light at Musadia and Handia completed. This covers 400 meters long entire road inside village Musadia and strategic 7 points in Handia village.
- Foundation stone laid for Stadium development at Paradeepgarh in the presence of Sarpanch, PRI members, Head CSR and ED Odisha Assets. This will provide the plat form for the development of sports for about 2000 youths residing in periphery villages namely Paradeepgarh, Chakradharpur, Pipal, Phulbelari, etc.
- Construction of toilet block at Musadia UP School has been completed. This will provide the basic sanitation facility in the school premises. Near about 400 students and 05 teaching staffs will be benefitted from the project. Also it will develop the practice of sanitation among the school students.
- Construction of main stage completed at Paradeepgarh under the broad development of Playground. We had planned to develop the play ground under the broad heads of increasing the ground level to avoid water logging during rainy season, construction of 03 numbers of gallery and construction of stage. Now the construction of stage is completed and other works is yet to be started.
- Musadia village is situated below the ground level and adjacent to the AMNS boundary wall. During the dry season, the water channels connecting to the village gets covered by vegetation and weeds leading to water logging and blockage during rainy season. Hence Trench cleaning at Musadia village is going on to avoid water logging in the coming

monsoon. Hence this will help in passing of excess water from the village during rainy season and will save the village of nearby 800 population from water blockage.

- Cleaning of water channels of 1.5 Km length has been completed in Musadia Village. This will help in preventing water logging problem in Musadia village during Monsson season.
- Construction and inauguration of toilet block at Musadia UP Sachool completed. Near about 200 students and 10 teaching and non-teaching staffs will be benefitted from the support.
- Tanker drinking water supply to Handia village is in progress with 1 trip in each day to mitigate the scarcity of drinking water in the village.
- Construction of stadium at Paradeepgarh is in progress and 50% of work has been completed.
- Baseline survey and land identification for installation of water purifier plant is completed by Water life at site.

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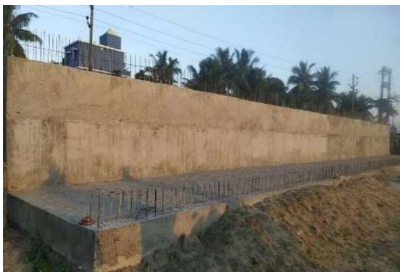
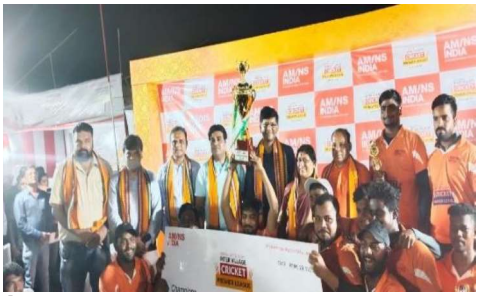


Sports & Culture-

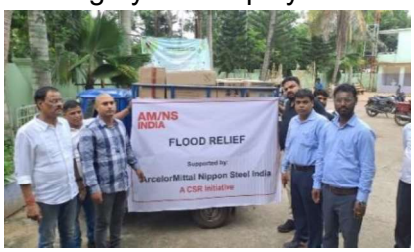
- AMNS INDIA organized inter village cricket league by taking 10 teams from three grampanchayats. The three-day long day and night tournament was organized by CSR department under it's flagship project named "UDDAN". 150 players from 10 teams of Nuagarh, Baldia, Handia, Singitali, Musadia, Paradeepgarh, Chakradharpur, Bhutmundia, Phulbelari, Pipal villages participated in the occasion and Nuagarh village became the

champion. AMNS supported the teams with fooding, transport, uniform and cricket kit. The best talents were honored with cash prize and trophy.




Other Activities-

- International Yoga Day 2023 was celebrated in Nuagarh High School premises where 300 students practised Yoga as a part of their lifestyle.
- Relief support provided to flood affected area in Kujang block. Relief materials like dry rice, cattle feed, Biscuit, Sanitary pad etc. were supported to block administration and near about 500 families got benefited from the support.
- RPDAC report were prepared by providing expenses from 2011 till date on CSR activities
- Employee Volunteering Programme organized for windmill making and water cycle drawing by the Employees.

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Beneficiaries Impacted

For the month of April 2023- September 2023

Sl. No	Thematic Area	Lives Touched
1	Health	5545
2	Education	7410
3	Livelihood/Skill Development	849
4	Portable Water & Infra	4510
5	Other Initiatives	1202
Total		19516

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