TSM/MoEF&CC/BS-26/2023-02/395
November 30, 2023

The Deputy Director General of Forests (C)
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office,
A/3, Chandersekharpur,
Bhubaneswar-751023

Subject: Half yearly EC compliance reports of 256 MW captive power plant of Tata Steel Ltd., Meramandali for the period April'23 to Sept'23.

Reference: EC vide letters no.J-13012/77/2011-IA-II (I), dated 12.02.2015

Dear Sir,

This has reference to the captioned subject and cited references. It is to inform that we are herewith submitting six monthly compliance reports for the conditions stipulated in the Environment Clearance of 256 MW captive power plant of Integrated Steel Plant of Tata Steel Ltd. Meramandali for the period from April 2023 to September 2023 along with monitoring report for your kind consideration.

The copy of above compliance report is also being sent in soft format through email (roez.bsr-mef@nic.in) for your kind perusal. Also copy of EC compliance is being uploaded on MoEFCC website on portal http:// environmentalclearance.nic.in.

Hope the above are in line with the statutory requirements.

Thanking you,

Yours faithfully,
For Tata Steel Limited

Anoop Srivastava
Chief Environment

Copy to :

I. The Zonal Officer, Central Pollution Control Board, Southern Conclave Block 502, 5th & 6th Floors, 1582 Rajdanga Main Road, Kolkata - 700107.
II. The Member Secretary, SPCB, Parivesh Bhawan, A/118, Nilakahanta Nagar, Unit- VIII, Odisha, Bhubaneswar-751012.
III. The Regional Officer, State Pollution Control Board, Odisha, Angul.

SL.	STIPULATED CONDITIONS	COMPLIANCE STATUS
i	Vision document specifying prospective plan for the site shall be formulated and submitted to the RO of the Ministry within six months.	• Vision, Mission and Environment Policy statements have been submitted to the Regional Office, MoEF&CC, BBSR along with the compliance report.
ii	Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.	• Power is co-generated utilizing waste heat from DRI units through WHRBs. • Additionally, coke oven and blast furnace gases are also used for generating green power through gas fired boilers utilizing renewal energy source. • TERI has been engaged to carryout feasibility study for installation of solar power.
iii	Sulphur and ash contents in the imported coal to be used in the project shall not exceed 0.3% and 6% respectively at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to environment clearance condition wherever necessary.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated. • Amendments in environment clearance has been made on 13th Aug'21 for switching of fuel from dual firing (Coal + Mixed gas) to 100 % mixed gas firing.
iv	A long term study of radioactivity and heavy metals contents in coal to be used shall be carried out through a reputed institute and results thereof analyzed every two years and reported along with monitoring reports. Thereafter mechanism for an in-built continuous monitoring for radioactivity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated. • Hence, no need no monitor Radioactivity and heavy metals contents in coal and ash.
v	A stack of 220 meter height shall be provided with continuous online monitoring equipments for SO_x, NO_x, PM_{10} and $PM_{2.5.}$ Exit velocity of flue gases shall not be less than 22 m / sec. Mercury emissions from stack shall also be monitored on periodic basis.	• Not applicable as gas fired boiler has been commissioned instead of CFBC coal boiler. Chimney height 70 m and 40 m is attached to 60 TPH & 125 TPH and 250 TPH respectively. Online monitoring system has been installed for SOx and NOx in the stacks. Online data is transmitted to SPCB and CPCB servers through RT-DAS.

vi	High efficiency ESPs shall be installed to ensure that particulate emission does not exceed 50 mg / Nm^3. Adequate dust extraction system such as cyclones/bag filters and water spraying system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal and particulate matter emission is very less. Hence, no requirement of ESPs.
vii	Adequate dust extraction system such as cyclones / bag filters and water spraying system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. Hence, no coal and ash handling and dust extraction system such as cyclones / bag filters and water spraying system not required.
viii	COC of at least 5.0 shall be adopted	• COC in the range of 7 -8 is maintained.
ix	Monitoring of surface water quantity and quality shall also be regularly conducted and records maintained. The monitoring data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of the flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.	• Monitoring of surface water and ground water is being carried out regularly. Monthly monitoring reports are being submitted to the SPCB, Odisha. Last monitoring report was submitted on November 10th, 2023. • The summarized data is enclosed as **Annexure - I.**
x	A welldesigned rainwater harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant premises and detailed records kept of the quantity of water harvested every year and its use.	• Lagoons and HDPE pond have been constructed to harvest rainwater. This water is reused in the process when required. During the period Apr'23 to Sep'23, 53865 m^3 of rainwater has been utilized in process. • Surface runoff water collected from DRI & RMHS area are channelized through drains into a series of storage pond for harvesting.
xi	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.	• No water body or natural drainage system is disturbed. Water body is kept as it is.

xii	Hydrogeology of the area shall be reviewed annually from an institute / organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case any deterioration is observed, specific mitigation measures shall be undertaken and report / data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. However, ground water level and quality are being monitored on quarterly basis. The summary of the report is attached as **Annexure- I.**
xiii	Wastewater generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB / CPCB.	• Wastewater generated from the plant is being treated in Effluent Treatment Plant • Treated effluent is being reused in slag granulation, greenery development and low-end application in Blast Furnace & Sinter Plant etc. • The water quality parameters are well within the limit as per the prescribed standard.
xiv	Additional soil for leveling of the proposed site shall be generated within the site (to the extent possible) so that natural drainage system of the area is protected and improved.	• No additional soil is required for leveling the site.
xv	Prior approval of the Ministry shall be obtained for Mine Void and abandoned stone quarry filling of fly ash based on the outcome of the pilot study for which permission was accorded to the existing units by the Ministry on 05.09.2013 subject to Hon'ble NGT's Order.	• We request to withdraw this condition as this is not applicable. We have communicated vide letter No. TSBSL/MoEF&CC/BS-01/2020-01/57 dtd.27.08.20.
xvi	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry. Mercury and other heavy metals (As, Cr, Pb etc) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying areas.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated.

xvii	Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local panchayat.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated.
xviii	Ash pond shall be lined up with HDPE/LDPE lining or any other suitable material impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	
xix	Green belt consisting of three tire of plantation of native species around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 trees per ha with survival rate not less than 80%. Only native species shall be planted and the green belt development shall be expedited.	• Green belt development is under progress in and around the plant complex by planting indigenous species as per CPCB guidelines. Till Sep'23, 33.66% of area (This includes Plant, R&R and CSR) has been covered under green belt. Rapid afforestation using MiyaWaki method in consultation with IIT, Kharagpur has also been implemented along the boundary wall. • Plantation of saplings are done regularly based on the availability of vacant area. During the period Apr'23 to Sep'23, 35813 nos. of plant have been planted. Proper maintenance of green coverage is being ensured throughout the year.
xx	CSR schemes identified based on Public Hearing issues and need based assessment shall be implemented in consultation with the village panchayat and the District administration starting from the development of the project itself. As part of CSR, prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community	• The peripheral development is being carried out based on socio economic survey and need based assessment. Based on this, company has provided the facilities of sanitation, drinking water, education, health care, road and communication facilities etc in surrounding villages. • Various socio-economic development programs covering education, safe drinking water, sports and health care etc are undertaken in nearby villages.

	development activities and income generating program.	• Details breakup of CSR initiatives are enclosed as **Annexure-II.**
xxi	As committed, a minimum amount of Rs. 40.00 crore shall be earmarked for CSR activities for next five years. For proper and periodic monitoring of CSR activities, a CSR committee or a social audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final	• CSR department has been established to monitor the CSR activities. The CSR activities are based on need based assessment.
xxii	For proper and periodic monitoring of CSR activities, a CSR committee or a social audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.	• As per the revised companies Act, 2013 and its amendment, CSR committee has been formed. Evaluation of each specific CSR intervention/activities is monitored & evaluated by the CSR Committee. • Evaluation of the Impact of Corporate Social Responsibility Projects has been carried out by XIMB, Bhubaneswar.
xxiii	An Environmental Cell comprising of at least one expert in environment science/engineering, ecology, occupational health and social science, shall be created preferably at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the Head of the Plant who would be accountable for implementation of environmental regulations and social impact improvement / mitigation measures.	• Environment Management Department has been established for implementation of stipulated environmental safeguards and control of pollution. • The head of the Environment department and other officers are having Environmental Science/Engineering qualification and adequate experience.
A	**General Conditions:**	
i	Space for FGD shall be provided for future installation as may be required.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, generation SO2 is minimum. Hence, FGD is not required.

ii	The treated effluents conforming to the prescribed standards only shall be re-circulated and re-used within the plant. Arrangements shall be made that effluents and storm water do not get mixed	• Wastewater is treated in ETP • The treated effluent, conforming to the prescribed standards, are recycled and reused for slag granulation, dust suppression and green area development.
iii	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt / plantation.	• STP of 100 m3 per day has been installed near Blast Furnace-I.
iv	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fire in coal yard especially during summer season. Copy of these measures with full details along with location on plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal..
v	Storage facility for auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area in consultation with the Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	• Not applicable. LDO/HFO/LSHS is not using for startup activities. Startup activities are being carried out by LPG or COG.
vi	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	• Adequate First aid and sanitation arrangements were made during construction phase of the plant and similar facilities are being maintained during operational phase also for the workers and employees.
vii	Noise level emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dB(A) from the source. For people working in the high noised areas, requisite PPEs like ear plugs/ear muffs etc shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically	• Silencers have been provided at boilers to control noise during steam venting. • Necessary PPEs are being provided to all the workers working in noisy areas and periodic examination is being conducted for the workers engaged in noisy areas. • Noise monitoring is carried out regularly in the work zone areas and reports are enclosed as **Annexure-III.**

	examined to maintain audiometric records and for treatment for any hearing loss including shifting to non-noisy/less noisy areas.	
viii	Regular monitoring of ambient air ground level concentration of SO_2, NO_x, $PM_{2.5}$, PM_{10} and Hg shall be carried out in the impact zone and records maintained. If at any stage levels are found to exceed the prescribe limits, necessary control measures shall be provided immediately. The locations of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the regional office of the Ministry. The data shall also be put on the website of the Company.	• Five manual ambient air quality monitoring stations have been set up in nearby villages for measuring ground level concentrations of PM_{10}, SO_2 and NOx in consultation with SPCB. Odisha. EC compliance along with all report is being uploaded on the Company's website at http://www.tatasteel.com.
ix	Utilization of 100 % fly ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	• Not applicable as presently gas-based power plant of capacity 165 MW has been commissioned. This plant does not consume coal hence, no ash is being generated.
x	Provision shall be made for the housing of contractor workers (as applicable) within the site with all necessary infrastructure facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc.	• Adequate arrangements of housing for construction workers were made during construction phase of the plant.
xi	The project proponent shall advertise in at least two local news papers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environment clearance and copies of the clearance letters are available with the SPCB/Committee and may also be	• Advertisements were circulated in The Telegraph (English daily) dated 15.02.2015 and the Samaya (Oriya daily) dated 15.02.2015. • A copy of the same was submitted to MoEF&CC vide our letter no. BSL/MoEF/BS-02/2015-09 dated 21.02.2015.

	seen at website of the Ministry of Environment and Forests at http://envfor.nic.in	
xii	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the Company by the Proponent.	• Copy of the environment clearance was submitted to the concerned panchayat, Zila Parishad, District Industry Centre etc.
xiii	The proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of measured data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF, the respective zonal office of CPCB and the SPCB. The criteria pollutant levels namely SPM, RSPM (PM_{10} and $PM_{2.5}$) SO_2, NO_x (ambient as well as stack emission) shall be displayed at a convenient location near the main gate of the Company in the public domain.	• Status of compliance of the stipulated environment clearance conditions are being uploaded on website and are being sent to the Ministry, CPCB and SPCB. Results of online air quality monitoring are displayed electronically near the main gate. • The last half yearly compliance report was submitted vide letter no. TSL/MoEF&CC/BS-26/2023-01/343 dated 31.05.2023.
xiv	The environment statement for each financial year ending 31st March in Firm-V as is mandated to be submitted by the project proponent to the concerned SPCB as prescribed under the Environment (Protection) Rules 1986, as amended subsequently, shall also be put on the website of the Company along with the status of compliance of environment clearance conditions and shall also be sent to the respective Regional Office of the Ministry by e-mail.	• The Environmental Statement in Form-V is being submitted to SPCB/CPCB/MOEF&CC regularly. • The Environment Statement for the FY 2022-23 was submitted vide letter no. TSL/SPCB/BS-03/2022-14/249, dated 25.09.2023.

xv	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of environment and Forests, its Regional Office, CPCB and SPCB. The project proponent shall upload the status of compliance of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional office of MoEF.	• Six monthly reports on status of the implementation of the stipulated environmental safeguards are being submitted. • Status of compliance with the environmental clearance conditions is being uploaded on the Company's website at http://www.tatasteel.com.
xvi	Regional office of the MoEF will monitor the implementation of the stipulated conditions. A complete set of documents including Environment Impact Assessment report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will upload the compliance status in their website and update the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack and ambient air) shall be displayed at the main gate of the power plant.	• All the required documents have been already submitted to the Regional Office and will be made available during inspection. • Compliance status is uploaded on the website and updated in every six months.
xvii	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These 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 to the Ministry.	• Adequate funds are being provided by the management for pollution control and to meet recurring costs. Environmental requirements are given top priority for fund allocation and approval of capital projects. • The funds earmarked for environment pollution control measures are not diverted for any other purpose. • The company has invested adequate capital expenditure to improve mix of clean power & also reduction of carbon emissions

xviii	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the project authorities and the dates of land development work and commissioning of plant.	• Financial closure and financial approval will be communicated to the regional office and the Ministry of MoEF&CC.
xix	Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office / CPCB / SPCB who would be monitoring the compliance on environmental status.	• Full cooperation is extended to the Scientists/Officers from the Ministry / Regional Office / CPCB / SPCB who would be monitoring the compliance on environmental status.

EC transfer from M/s Bhushan Steel Limited to Tata Steel BSL Limited		
SL	**ADDITIONAL CONDITION**	**COMPLIANCE STATUS**
i.	M/s Tata Steel BSL Ltd. (new incumbent) shall submit an application for amendment in EC for switching from 50% coal & 50% mix gases from Steel plant to 100% mix gases from steel plant for stipulation of adequate conditions on pollution control measures by the Ministry.	• Amendment EC has been obtained for switching from 50% coal & 50% mixed gases from Steel plant to 100% mixed gases.
ii	The revised emission standards and specific water consumption as per the Ministry's Notification vide S.O.33.5 dated 17.12.2015 and subsequent amendments shall be complied with. The progress of implementation of new emission standards as per the extended timelines given by CPCB vide Order dated 16.04.2018 shall be submitted as part of compliance report.	• The revised emission standards and specific water consumption as per the Ministry's Notification vide S.O.33.5 dated 17.12.2015 and subsequent amendments is being complied with.
iii	Details of quantity of water consumption, power generation and Specific water consumption shall be submitted as part of compliance report.	• Water consumption, power generation and specific water consumption for the period April'23 to Sept'23 are given below. Water consumption: 413 M^3/hr Power Generation: 527735 MWh Specific water consumption: 3.43 m3/MWh
iv	The status of case (CC case No.16/2014) filed before Hon'ble Sub Divisional Judicial Magistrate, Dhenkanal against Shri Neeraj Singhal, M/s Bhushan Steel Ltd. shall also be communicated to the Ministry.	• Case is sub-judice at Hon'ble Sub Divisional Judicial Magistrate, Dhenkanal and pending for Supply of Prosecution Report.

Amendment Environment clearance of 256 MW power plant Letter no.: J-13012/77/2011-I-A. II (T) dated 13.08.2021		
SL	**ADDITIONAL CONDITION**	**COMPLIANCE STATUS**
1	Project Proponent shall submit Compliance report of Ministry Regional office within 6 months.	• Certificate of compliance of Regional Office of MoEF& CC has already been communicated vide letter No.TSL/MoEF &CC/BS-26/2022-02/202 dtd. 13.05.22.

LIST OF ENCLOSURES

Sl. No.	Enclosure	Details
1.	Annexure -I	Water Analysis Report
2.	Annexure -II	CSR Report
3.	Annexure -III	Ambient & Work zone Noise Report

Annexure-I

Summary of Surface Water Quality Analysis

Period: From April 2023 to September 2023

S.N	Parameter	Unit	Kishinda Nala		Lingra Nala		Brahamani River	
			U/S	D/S	U/S	D/S	U/S	D/S
1	pH Value	-	7.05 - 7.77	6.82 - 8.07	7.9 - 8.04	7.1 - 8.33	6.94 - 7.63	7.49 - 7.67
2	Colour	Hazen	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)
3	Temperature	Deg C	< 31	< 33	< 29	< 24	< 30	< 34
4	Total Suspended Solids	mg/l	3.2 - 20.4	2 - 26.8	2.8 - 14.8	5.1 - 26	2.8 - 32	6.2 - 67.5
5	Arsenic as As	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
6	BOD, 3days at 27°C	mg/l	BDL (DL:2.0)	< 3.1	BDL (DL:2.0)	< 2.7	< 4.7	< 4.5
7	Boron as B	mg/l	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)
8	Cadmium as Cd	mg/l	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
9	Calcium as Ca	mg/l	48 - 109.76	11.88 - 54.88	32 - 48	28 - 58.8	8 - 24	12 - 20
10	Chlorides as Cl	mg/l	29.99 - 89.97	14.7 - 84.97	19.59 - 49.98	29.6 - 119.96	4.95 - 19.99	9.9 - 29.99
11	COD	mg/l	7.7 - 16.7	7.4 - 15.4	7.4 - 12	8.2 - 16	7.5 - 23.04	11.3 - 20
12	Copper (as Cu)	mg/l	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)
13	Cyanide as CN	mg/l	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)

14	Fluoride as F-	mg/l	0.35 - 4.2	0.22 - 2.4	0.24 - 1.06	0.53 - 2.17	0.24 - 0.74	0.21 - 0.72
15	Hexa Chromium as Cr +6	mg/l	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
16	Iron as Fe	mg/l	0.09 - 0.56	0.06 - 2.01	< 0.26	< 1.58	0.07 - 4.8	0.06 - 3.9
17	Lead (as Pb)	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
18	Manganese (as Mn)	mg/l	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)
19	Mercury (as Hg)	mg/l	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)
20	Nickel (as Ni)	mg/l	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
21	O&G	mg/l	BDL (DL:1.4)	BDL (DL:1.4)	BDL (DL:1.4)	BDL (DL:1.4)	BDL (DL:1.4)	BDL (DL:1.4)
22	Phenolic Comp	mg/l	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
23	Phosphate as P	mg/l	0.09 - 0.46	0.07 - 0.62	0.06 - 0.32	0.08 - 0.16	0.08 - 0.52	0.07 - 0.68
24	RFC	mg/l	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)
25	Selenium (as Se)	mg/l	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
26	TKN	mg/l	BDL (DL:0.3)	BDL (DL:0.3)	BDL (DL:0.3)	BDL (DL:0.3)	BDL (DL:0.3)	BDL (DL:0.3)
27	Zinc (as Zn)	mg/l	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)

Note: BDL: Below Detectable Limit; DL: Detectable Limit, U/S: Upstream D/S: Downstream

Source: Monitoring/ Analysis report of S.K. Mitra Private Limited and Environment Laboratory of TSM.

Summary of Treated Domestic Effluent Analysis

Period: From April 2023 to September 2023

S.N.	Location	Parameters in Range		
		pH	Suspended Solid in mg/l	BOD (3 days at 27°C) in mg/l
1.	Colony STP	6.88-7.94	5.4-25	2.5-22
2.	AEL STP	7.02-7.55	<2.5-24	4.3-16
3.	BF-1 STP	6.84-7.2	<2.5-4.2	<2.0-7.8

Summary of Effluent Treatment Plant Analysis

Period: From April 2023 to September 2023

S.N	Location	Parameters in Range					
		pH	Suspended Solid in mg/l	Chemical Oxygen Demand in mg/l	BOD (3days at 27°C) in mg/l	Oil & Grease	Iron as Fe
1.	ETP-1 (Outlet)	6.7-7.04	<2.5-74	<4.0-20	<2.0-5.1	<5	<0.05-2.0
2.	ETP-2 (Outlet)	<2.5-74	<2.5-28	<4.0-24	<2.0-5.9	<5	0.06-1.1
3.	ETP-3 (Outlet)	6.71-7.65	11-96	<4.0-44	<2.0-11.0	<5	<0.1-0.56
4.	CRM (ETP Outlet)	7.02-7.59	7.5-92.0	<4.0-104	<2.0-29.0	<5	<0.05-1.8
5.	BF-1 (Thickener Outlet)	6.97-7.56	15-96	36-92	-	<5	0.2-2.0
6.	BF-2 (Thickener Outlet)	6.97-7.77	10-59	8-124	-	<5	0.12-1.5
7.	BOF (Thickener Outlet)	7.04-7.6	24-92	<4.0-44	-	<5	7.8-64

S.N.	Location	Parameters in Range						
		pH	Suspended Solid in mg/l	Chemical Oxygen Demand in mg/l	BOD (3days at 27°C) in mg/l	Oil & Grease	TCN	Phenol
8.	Coke Oven-1 (BOD-1 Outlet)	6.78-7.6	6.0 - 30	40 - 68	10 - 22	<5	<0.02 - 0.2	<0.01
9.	Coke Oven-2 (BOD-2 Outlet)	6.94-7.66	4.7 - 104	104 - 164	28 - 52	<5	<0.02	<0.01-0.85

Summary of ground water level monitoring report inside plant premises

Period: From April 2023 to September 2023

S.N.	Location with description	Sample Code	Depth of Monitoring Bore Well	Longitude	Latitude	Ground Water Level (m)
						July-23
1	Colony near STP	GW-1	165ft	20°49.045'	85°15.734'	2.14
2	RMHS Near Wagon Tippler	GW-2	300ft	20°47.752'	85°15.993'	3.82
3	Near Blast Furnace-2	GW-3	162ft	20°47.25'	85°15.613'	2.2
4	Near Railway bridge	GW-4	156ft	20°48.920'	85°15.858'	3.24

Ground Water Quality Analysis

S.N.	Parameter	Unit	GW-2	GW-3	GW-4	GW-6	Standard as per IS-10500-2012
1	p H	-	7.85	8.12	7.8	7.64	6.5-8.5
2	Colour	Hazen	Colorless	Colorless	Colorless	Colorless	15
3	Odour	-	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	-
4	T. Hardness (as CaCO3)	mg/l	200	380	370	380	300
5	Calcium as Ca	mg/l	48	80	108	80	75
6	Magnesium as Mg	mg/l	19.20	43.20	24	43.20	30
7	Iron as Fe	mg/l	0.08	0.48	0.05	0.08	0.3
8	Chloride as Cl	mg/l	44.54	49.48	133.61	128.66	250
9	Fluoride as F-	mg/l	0.29	0.32	0.28	0.34	1
10	Dissolved solids	mg/l	280	434	630	510	500
11	Nitrate as NO3	mg/l	0.97	1.42	0.98	1.01	45
12	Chromium as Cr+6	mg/l	0.01	0.01	0.01	0.01	0.05
13	Alkalinity as CaCO3	mg/l	148.5	128.7	316.8	297	200

Summary of ground water level monitoring report inside plant premises

Ground Water Level
Period: May 2023

S.N	Location	Sample Code	Longitude	Latitude	Water Level from GL (m) BGL
					May'23
1	Kharagprasad	GW-01	20^0 49.299'	85^0 18.923'	4.20
2	Charadagadia	GW-02	20^0 47.768'	85^0 17.083'	6.20
3	Sibpur	GW-03	20^0 46.941'	85^0 14.394'	5.30
4	Kochilamada	GW-04	20^0 47.541'	85^0 16.802'	5.90
5	Galapada	GW-05	20^0 48.142'	85^0 18.600'	4.90
6	Motonga	GW-06	20^0 48.143'	85^0 18.599'	5.20
7	Asanabania	GW-07	20^0 47.534'	85^0 16.802'	5.90
8	Narendrapur	GW-08	20^0 49.483'	85^0 15.530'	5.10
9	Khaliberena	GW-09	20^0 46.946'	85^0 14.396'	5.40
10	Ganthigadia	GW-10	20^0 48.501'	85^0 15.118'	4.20

Ground Water Quality Analysis Report of surrounding villages

May 2023

S.N.	Parameters	unit	GW-01	GW-02	GW-03	GW-04	GW-05	GW-06	GW-07	GW-08	GW-09	GW-10
1	**pH**	**-**	7.39	7.17	7.31	7.5	6.61	7.05	7.65	6.96	7.37	6.91
2	**Odour**	**-**	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	**Colour**	**mg/l**	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)
4	**Turbidity**	**N.T.U**	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	5.4	14.9	BDL (DL:1.0)	3.6	10.2
5	**Total Dissolved Solids (as TDS)**	**mg/l**	424	896	418	430	114	610	340	340	336	844
6	**Aluminium as Al**	**mg/l**	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
7	**Anionic Surface Active Agents as (MBAS)**	**mg/l**	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)
8	**Boron as B**	**mg/l**	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)
9	**Calcium as Ca**	**mg/l**	70.56	58.8	62.72	70.56	19.6	78.4	47.04	62.72	54.88	101.92
10	**Chloride as Cl**	**mg/l**	73.48	166.55	97.97	73.48	24.49	93.07	48.98	48.98	68.58	146.95
11	**Copper as Cu**	**mg/l**	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)
12	**Fluoride as F**	**mg/l**	0.31	0.61	0.78	0.52	BDL (DL:0.2)	0.61	1.16	1.15	0.48	0.98
13	**Residual Free Chlorine**	**mg/l**	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)
14	**Iron as Fe**	**mg/l**	BDL (DL:0.05)	0.10	BDL (DL:0.05)	0.08	BDL (DL:0.05)	0.2	0.38	0.31	BDL (DL:0.05)	0.28
15	**Magnesium as Mg**	**mg/l**	25.87	23.52	18.82	23.52	7.06	37.63	23.52	23.52	14.11	47.04
16	**Manganese as Mn**	**mg/l**	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)
17	**Mineral Oil**	**mg/l**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

			(DL:0.5)	(DL:0.5)	(DL:0.5)	(DL:0.5)	(DL:0.5)	(DL:0.5)	(DL:0.05)	(DL:0.05)	(DL:0.5)	(DL:0.5)
18	**Nitrate as NO3**	**mg/l**	1.02	2.11	1.25	1.21	0.70	1.9	1.6	1.32	0.89	2.25
19	**Phenolic Compounds as C6H5OH**	**mg/l**	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
20	**Selenium as Se**	**mg/l**	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
21	**Sulphate as SO4**	**mg/l**	3.58	8.8	4.25	4.2	2.05	6.98	4.8	3.89	4.08	10.2
22	**Total Alkalinity as CaCO3**	**mg/l**	244.8	387.6	204	204	61.2	306	163.2	204	163.2	367.2
23	**Total Hardness as CaCO3**	**mg/l**	284.2	490	235.2	274.4	78.4	352.8	215.6	254.8	196	450.8
24	**Zinc as Zn**	**mg/l**	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)
25	**Cadmium as Cd**	**mg/l**	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
26	**Cyanide as CN**	**mg/l**	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
27	**Lead as Pb**	**mg/l**	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
28	**Mercury as Hg**	**mg/l**	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)
29	**Nickel (as Ni)**	**mg/l**	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
30	**Total Arsenic (as As)**	**mg/l**	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
31	**E. coli**	**/100 ml**	Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Detected	Detected

August 2023

S.N.	Parameters	unit	GW-01	GW-02	GW-03	GW-04	GW-05	GW-06	GW-07	GW-08	GW-09	GW-10
1	**pH**	**-**	7.22	6.74	7.20	6.90	7.01	6.7	7.34	6.94	6.85	7.15
2	**Odour**	**-**	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	**Colour**	**mg/l**	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:1.0)
4	**Turbidity**	**N.T.U**	3.1	1.4	4.1	BDL (DL:1.0)	17.1	1.6	BDL (DL:1.0)	8.5	3.1	BDL (DL:1.0)
5	**Total Dissolved Solids (as TDS)**	**mg/l**	163	764	196	490	146	560	94	266	210	380
6	**Aluminium as Al**	**mg/l**	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
7	**Anionic Surface Active Agents as (MBAS)**	**mg/l**	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)	BDL (DL:0.05)
8	**Boron as B**	**mg/l**	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)	BDL (DL:0.25)
9	**Calcium as Ca**	**mg/l**	31.04	116.4	38.80	93.12	31.04	93.12	11.64	62.08	38.80	77.60
10	**Chloride as Cl**	**mg/l**	24.74	138.56	29.69	49.48	14.85	79.18	19.79	34.64	19.79	19.79
11	**Copper as Cu**	**mg/l**	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)
12	**Fluoride as F**	**mg/l**	BDL (DL:0.2)	0.37	0.24	0.72	BDL (DL:0.2)	1.21	BDL (DL:0.2)	0.43	0.38	0.55
13	**Residual Free Chlorine**	**mg/l**	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)	BDL (DL:0.1)
14	**Iron as Fe**	**mg/l**	0.10	0.09	0.14	0.08	1.56	0.09	0.21	0.85	0.15	BDL (DL:0.05)
15	**Magnesium as Mg**	**mg/l**	11.64	46.56	16.30	37.25	9.31	37.25	4.66	11.64	18.62	37.25
16	**Manganese as Mn**	**mg/l**	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)

17	**Mineral Oil**	**mg/l**	BDL (DL:0.5)	BDL (DL:0.5)	BDL (DL:0.5)	BDL (DL:0.5)	BDL (DL:0.5)	BDL (DL:0.5)	BDL (DL:0.5)	BDL (DL:0.5)	BDL (DL:0.5)	BDL (DL:0.5)
18	**Nitrate as NO3**	**mg/l**	0.84	0.94	0.84	1.20	0.87	0.86	BDL (DL:1.0)	1.01	0.95	0.78
19	**Phenolic Compounds as C6H5OH**	**mg/l**	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
20	**Selenium as Se**	**mg/l**	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
21	**Sulphate as SO4**	**mg/l**	3.20	14.56	3.65	10.6	2.98	12.85	1.42	5.20	4.52	4.80
22	**Total Alkalinity as CaCO3**	**mg/l**	110	420	150	220	100	380	40	180	160	300
23	**Total Hardness as CaCO3**	**mg/l**	126.1	485	164.90	388	116.4	388	48.50	203.70	174.60	349.20
24	**Zinc as Zn**	**mg/l**	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)	BDL (DL:0.02)
25	**Cadmium as Cd**	**mg/l**	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)	BDL (DL:0.001)
26	**Cyanide as CN**	**mg/l**	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
27	**Lead as Pb**	**mg/l**	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
28	**Mercury as Hg**	**mg/l**	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)	BDL (DL:0.0002)
29	**Nickel (as Ni)**	**mg/l**	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)	BDL (DL:0.01)
30	**Total Arsenic (as As)**	**mg/l**	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)	BDL (DL:0.005)
31	**E. coli**	**/100 ml**	Detected	Detected	Detected	Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

---------- End of Report ----------

Annexure-II

CSR EXPENDITURE AND ACTIVITY HIGHLIGHTS
(Around Tata Steel Ltd. Meramandali)

Period: From April'23 to September'23

PROGRAM HEAD	Expenditure in Lakh	MAJOR INTERVENTIONS/REMARKS
HEALTH	55.61	Public Health Unit; Rishta; Dengue/Malaria control, Cataract, Non communicable disease control
Agriculture	51.16	PISCI culture, Lemon grass, SRI farming
Water harvesting Structure	52.50	Odapada pond renovation work. 9 acre
DRINKING WATER	48.56	Installation of tubewells; deep bore wells, pipeline system and water supply through tanker
EDUCATION	331.57	School infrastructure; Education project: QUEST
WEE project	61.32	WEE Project
COMMUNITY INFRASTRUCTURE	43.32	Construction & Maintainance of Drain and Road; Installation of solar lights
SPORTS	1.59	Volleyball coaching
ETHNICITY	1.43	Odia New year celebration (Maha Bisuva Sankranti)
TOTAL	**647.06**	

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/81
Dt.04.11.2022

AMBIENT NOISE MONITORING
TATA STEEL Ltd. (Oct '22)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	27.09.2022	54.1	55.0	44.6	44.5
2	AEL	28.10.2022	56.7	75.0	69.0	70.0
3	Coke Oven-2	25.10.2022	62.2		69.3	

Section (I/C) Manager (Lab) Sr.Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/88
Dt.07.12.2022

AMBIENT NOISE MONITORING
TATA STEEL Ltd. (NOV'22)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	10.11.2022	52.5	55.0	43.6	45.0
2	Coke Oven-2	14.11.2022	57.1	75.0	50.0	70.0
3	AEL	16.11.2022	61.4	75.0	59.4	70.0

A.K. Pradhan
Section (I/C)

Manager (Lab)

Sr.Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/95
Dt.04.01.2023

AMBIENT NOISE MONITORING
TATA STEEL Ltd. (DEC'22)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	22.12.2022	53.5	55.0	44.2	45.0
2	Coke Oven-2	12.12.2022	66.9	75.0	60.2	70.0
3	AEL	07.12.2022	57.8	75.0	63.9	70.0

Section (I/C) | Manager (Lab) | Sr.Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/102
Dt.06.02.2023

AMBIENT NOISE MONITORING (Day)
TATA STEEL Ltd. (JAN' 23)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (day time)	Standard dB(A) Leq (day Time)
1	Colony	24.01.2023	53.7	55.0
2	Coke Oven-2	03.01.2023	70.6	75.0
3	AEL	10.01.2023	71.4	75.0

Section (I/C)

Manager (Lab)

Sr.Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/108
Dt.02.03.2023

AMBIENT NOISE MONITORING
TATA STEEL Ltd. (FEB' 23)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	21.02.2023	53.5	55.0	44.8	45.0
2	Coke Oven-2	07.02.2023	60.8	75.0	58.5	70.0
3	AEL	02.02.2023	72.4	75.0	68.8	70.0

A.K. Pradhan.
Section (I/C)

Manager (Lab)

Maitreyee Dey
Sr.Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/116
Dt.05.04.2023

AMBIENT NOISE MONITORING
TATA STEEL Ltd. (MARCH' 23)

S.N	Location	Monitoring Date	Noise Level dB(A) Leq (day time)	Standard dB(A) Leq(Day Time)	Noise Level dB(A) Leq (Night time)	Standard dB(A) Leq(Night Time)
1	Colony	21.03.2023	53.2	55.0	44.5	45.0
2	Coke Oven-2	14.03.2023	60.3	75.0	57.3	70.0
3	AEL	30.03.2023	62.9	75.0	69.5	70.0

A.K. Pradhan
Section (I/C)

Manager (Lab)

Maj. Reddy
Sr.Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Annexure-II

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/88
Dt.07.12.2022

NOISE MONITORING REPORT
TATA STEEL Ltd. (NOV'2022)

Work Zone Noise Monitoring Report Nov 2022					
S.N	Name of the unit	Location	Noise level in dB(A) at 1 mtr		
			Min	Max	Leq
1	BF-2 cast House	Control room	60.3	77.3	66.1
2	BF-2 cast House	Near B F-2 Furnace area	74.3	76.4	75.5
3	BF-2 Stock House	Control room office	55.1	75.4	66.6
4	Lime Plant	Inside office building	56.1	781.9	65.3
5	BFPP 01- Boiler 3	Near Control room office	53.9	75.0	67.2
6	Gas fired boiler 250 TPH Area	Office and Control Room	53.3	57.7	54.5
7	DRI-KILN NO-1	Near 1& 2 control room office	57.1	75.8	63.4
8	DRI-KILN NO-3	Near 3& 4control room office	60.5	74.2	65.3
9	DRI-KILN NO-5	Near 5& 6 control room office	64.6	66.7	65.5
10	DRI-KILN NO-7	Near 7& 8 control room office	59	67.7	63.8
11	DRI-KILN NO-9	Near 9&10 control room office	57.6	60.8	58.3
12	110 MW- Boiler-01	Near Boiler area	82.1	87.8	83.6
13	110 MW- Boiler-03	Near Boiler area	82.2	86.2	81
14	110 MW- Boiler-06	Near Boiler area	80.4	80.5	80.2
15	110 MW- Boiler-07	Near Boiler area	83.6	84.3	84.0
16	110 MW- Boiler-08	Near Boiler area	77.7	78.2	78.0
17	110 MW- Boiler-09	Near Boiler area	77.6	86.5	79.6
18	110 MW- Boiler-10	Near Boiler area	76.2	77.6	77.0
19	BF-1 Cast House	Near B F-1 Furnace	74.1	76.2	74.7
20	BF-1 Stock House	BF-1 Office	59	72.6	63.6
21	CRM	Near CRM Mill Complex Area	66.4	79.2	71.8
22	CRM	Near ETP area	84.4	86.4	84.9
23	CRM	Near GP-1 Zinc Pot	83.6	91.9	86.9
24	CRM	Near GP-2 Zinc Pot	83.5	94.5	89.3
25	CRM	Near GP-3 Zinc Pot	92.4	93.4	92.9
26	CRM	Mill-1	86.9	92.2	88.8
27	CRM	Mill-2	91.2	101.7	94.5
28	CRM	Mill-3	86.3	94.7	90.8
29	CRM	CRM Plant Office	47.8	60.2	54.4
30	CRM	ECL	91.0	92.3	91.9
31	CRM	CRCA	88.4	90.5	89.1
32	CRM	RGM	85.7	89.1	86.5
33	SP-1	9 m office room	63	75.5	65.9
34	SP-1	15 m office	63.1	64.9	64.2
35	SP-1	19 m office	63.6	66.6	64.1
36	SP-1	Store area	56.4	68.7	61.8
37	SP-1	Electrical office	56.3	66.3	60.5
38	CO-1	Control room office	66.8	81	75.2
39	CO-1	Laboratory	60.0	66.5	61.1
40	SP-02	Control Room Area	52.7	59.3	55.7
41	BOF	BOF office area	59.2	75.5	63.8

Environment Laboratory
TATA Steel Meramandali, Odisha

Work Zone Noise Monitoring Report Nov 2022					
S.N	Name of the unit	Location	Noise level in dB(A) at 1 mtr		
			Min	Max	Leq
42	BOF	Near Wage bridge area	65.4	78.2	70.7
43	SMS-2, FES-1 &2	Booster House	79.5	84	80.9
44	SMS-2, FES-1 &2	Near Control room Area	70.1	84.2	81.2
45	SMS-2, FES-1 &2	Near RHF Office area (Pulpit)	67.1	79.8	73.7
46	HSM	Near Roll Shop area	74.6	89.5	82.1
47	HSM	Near HSM Quality Lab area	68.7	73.2	69.7
48	HSM	DC pulpit office area	66.5	78.7	71.1
49	HSM	FM area	86.1	95.3	88.7
50	HSM	Near DC sampling Station	82.2	92.4	84.3
51	CO-2	Control Room Office	54.8	62.6	57.3
52	BFPP 2 Boiler-3	Control room office	69.1	71.6	69.7
53	Oxygen Plant	Control Room Office	65.9	72.5	69.1
54	BB Plant	BB Plant Office	57.3	70.4	62.8
55	RMPP	Control Room Office	56.2	86.7	70.8
56	Coal Washary	Lab & Office Area	53.1	75.4	66.4
57	RMHS	RMHS Office	54.8	75.4	63.9

Employees have been provided with ear plugs so that they use these when they go to noisy area for Work. It can be noted that in noisy area employees are not at all deployed for continuously 8 hrs.

A K Pradhan
Section (I/C)

Manager (Lab)

Sr. Manager (Lab I/C)

...End Report...

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/93
Dt.04.01.2023

NOISE MONITORING REPORT
TATA STEEL Ltd. (DEC'2022)

Work Zone Noise Monitoring Report Dec 2022					
S.N	**Name of the unit**	**Location**	**Noise level in dB(A)**		
			Min	**Max**	**Leq**
1	BF-2 Cast House	Control room	49.5	61.9	53.7
	BF-2 Cast House	Near B F-2 Furnance area	72.6	79.4	76.4
2	BF-2 Stock House	Control room office	49.5	70	55.4
3	Lime Plant	Inside office building	53.7	79.2	62.2
4	BF PP-1 Boiler-03	Near Control room office	60.7	69.8	64.9
5	Gas fired boiler 250 TPH Area	Office and Control Room	57.9	83.6	64.6
6	DRI	KILN NO-1			
	DRI	Near 1& 2 control room office	54.2	66.3	59.2
	DRI	KILN NO-3			
	DRI	Near 3& 4control room office	55.2	92.5	69.5
	DRI	KILN NO-5			
	DRI	Near 5& 6 control room office	56.2	76.1	60
	DRI	KILN NO-7			
	DRI	Near 7& 8 control room office	58.2	75.8	61.3
	DRI	KILN NO-9			
	DRI	Near 9&10 control room office	57	78.2	64.3
7	110 MW Power Plant	Boiler-01			
	110 MW Power Plant	Near Boiler area	79.7	96.7	82.4
	110 MW Power Plant	Boiler-03			
	110 MW Power Plant	Near Boiler area	82.3	84.1	82.8
	110 MW Power Plant	Boiler-04			
	110 MW Power Plant	Near Boiler area	79.4	83.1	81.5
	110 MW Power Plant	Boiler-6			
	110 MW Power Plant	Near Boiler area	80.6	85.5	83.6
	110 MW Power Plant	Boiler-7			
	110 MW Power Plant	Near Boiler area	80	84.2	82.9
	110 MW Power Plant	Boiler-8			
	110 MW Power Plant	Near Boiler area	79.5	86.1	81.9
	110 MW Power Plant	Boiler-9			
	110 MW Power Plant	Near Boiler area	80.8	86.7	82.2
	110 MW Power Plant	Boiler-10			
	110 MW Power Plant	Near Boiler area	78.8	86.6	80.6
	110 MW Power Plant	AFBC Boiler Area			
	110 MW Power Plant	Near 33 TG MW	88.3	91	90.3
	110 MW Power Plant	Near 77 TG MW	93.5	95.1	94.5
8	BF-1 Cast House	Near B F-1 Furnance	72.5	81.6	80.1
9	BF-1 Stock House	BF-1 Office	60.1	83.3	69

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Work Zone Noise Monitoring Report Dec 2022					
S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
10	CRM	Near CRM Mill Complex Area	79.3	82.4	80.5
	CRM	Near T.L.L	84.3	87.3	86
	CRM	Near ETP area	83.7	85.8	84.4
	CRM	Near GP-1 Zinc Pot	86.4	90.2	87.8
	CRM	Near GP-2 Zinc Pot	85.9	91.2	88.4
	CRM	Colour Coating Line	81.7	83.8	82.4
	CRM	Mill-1	84.8	87.5	86.2
	CRM	Mill-2	85.4	90.1	88.4
	CRM	Mill-3	88.9	91.2	90.1
	CRM	CRM Plant Office	52.1	59.2	55.4
	CRM	ECL	89.2	91.5	90.3
	CRM	CRCA	85.6	89.2	88.7
	CRM	SPM	82.4	85.4	84.1
	CRM	RGM	84.7	87.5	85.5
11	Sinter Plant-1	9 m office room	53.8	60.1	57.1
	Sinter Plant-1	15 m office	66.6	78.2	70.5
	Sinter Plant-1	19 m office	63.7	69.1	65
	Sinter Plant-1	Store area	71.1	85.3	74.1
	Sinter Plant-1	Electrical office	55.6	61.1	59.9
12	Coke Oven-1	Control room office	59.3	76.4	66.3
	Coke Oven-1	Laboratory	65.6	80.3	69.5
13	Sinter Plant-02	Control Room Area	57.7	86.7	63.5
14	Sinter Plant-03	Control Room Area	57.7	81.6	65
15	BOF Shop	BOF office area	59	75.3	61
	BOF Shop	Near Wage bridge area	67.5	84.2	74
16	SMS-2-FES-1&2	Booster House (ID Fan)	80.8	91,7	85.4
	SMS-2-FES-1&2	Near Control room Area	56.3	80.4	69.5
17	HSM	Near RHF Office area (Pulpit)	63.7	81.6	69.8
	HSM	Near Roll Shop area	75.4	88.8	81.2
	HSM	Near HSM Quality Lab area	67.4	75.9	69.1
	HSM	DC pulpit office area	63.4	78.2	67.5
	HSM	FM area	79.2	98.2	88.2
	HSM	Near DC sampling Station	80.4	92.2	81.6
18	Coke Oven-2	Control Room Office	49.7	76.9	61
19	BFPP-2 Boiler-3	Control room office	56.7	59.3	57.1
20	Oxygen Plant-02	Control Room Office	56.6	60.9	57.4
21	BB Plant	BB Plant Office	49	90.6	69.7
22	RMPP	Control Room Office	53.6	84.5	70.7
23	Coal Washery	Lab & Office Area	54.9	59	52.3
24	RMHS	RMHS Office	49.6	54.9	53.4

N: B- All employees are provided ear plug / earmuff in noise prone areas. Rotation of employees are being done to ensure less than 8 hrs. exposure in high noise area.

Tusarakanta Samal.
Section (I/C)

Manager (Lab)

Maiyee
Sr. Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/99
Dt.06.02.2023

NOISE MONITORING REPORT
TATA STEEL Ltd. (JAN' 2023)

Work Zone Noise Monitoring Report for the month of Jan 2023					
S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
1	BF-2 Cast House	Control room	60.9	75	63.8
		Near B F-2 Furnance area	72.6	82.4	76.5
2	BF-2 Stock House	Control room office	62.4	72.7	67.4
3	Lime Plant	Inside office building	50.3	58.7	54.2
4	BF PP-1 Boiler-03	Near Control room office	53.7	64.5	56.6
5	Gas fired boiler 250 TPH Area	Office and Control Room	58.4	66.4	62.2
6	DRI	KILN NO-1 (Near 1& 2 control room office)	81.7	67.7	61.1
		KILN NO-3 (Near 3& 4control room office)	51.9	79.1	62.2
		KILN NO-5 (Near 5& 6 control room office)	53.9	73.6	63.6
		KILN NO-7 (Near 7& 8 control room office)	81	76.7	62.3
		KILN NO-9 (Near 9&10 control room office)	49.7	62.1	53.8
7	110 MW Power Plant	Boiler-02 (Near Boiler area)	82.9	85.9	84.6
		Boiler-03 (Near Boiler area)	83.4	85.3	84.2
		Boiler-04 (Near Boiler area)	81.7	83.1	82.3
		Boiler-5 (Near Boiler area)	82.6	85.4	84.1
		Boiler-6 (Near Boiler area)	82.3	85.7	83.5
		Boiler-7 (Near Boiler area)	80.9	86	82.9
		Boiler-8 (Near Boiler area)	78.7	81.8	80.6
		Boiler-9 (Near Boiler area)	77.7	79.1	78
8	BF-1 Cast House	Near B F-1 Furnance	85.3	91.1	88.7
9	BF-1 Stock House	BF-1 Office	61	80.5	67
10	CRM	Near CRM Mill Complex Area	69.7	83.2	73.7
		Near ETP area	82.1	85.8	84
		Near GP-2 Zinc Pot	87.1	91.6	86.6
		Near GP-3 Zinc Pot	78.7	87.7	85.7
		Colour Coating Line	80.6	86.7	83.9
		Mill-1	76.9	90.9	84.9
		Mill-2	82.2	88.7	84.1
		Mill-3	79.4	86.6	83.6
		CRM Plant Office	50.1	71	56.5
		ECL	86.1	91.7	88.2
		CRCA	82	95.1	86.9
		RGM	83.7	90	86.4

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Work Zone Noise Monitoring Report for the month of Jan 2023					
S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
11	Sinter Plant-1	9 m office room	60.3	75.3	72.4
		15 m office	59.7	79.7	65.4
		19 m office	59.9	66.4	61.6
		Store area	59.8	73	62.7
		Electrical office	59.8	80.3	68.4
12	Coke Oven-1	Control room office	54.2	69.6	59.5
		Laboratory	52.1	75.3	70.1
13	Sinter Plant-02	Control Room Area	51	67.4	64.1
14	Sinter Plant-03	Control Room Area	60.8	73.1	63.4
15	BOF Shop	BOF office area	48.9	64.4	56.9
		Near Wage bridge area	69.1	80.1	73.4
16	SMS-2-FES-1&2	Booster House (ID Fan)	81.6	90.3	87.5
		Near Control room Area	58.3	62.4	59.1
17	HSM	Near RHF Office area (Pulpit)	68.6	72.2	69.9
		Near Roll Shop area	74.6	84.6	78.3
		Near HSM Quality Lab area	68.6	78.3	64.3
		DC pulpit office area	61.2	81.9	71
		FM area	79.9	84.1	83
		Near DC sampling Station	76	87.1	80.2
18	Coke Oven-2	Control Room Office	66.1	80.2	67.8
19	BFPP-2 Boiler-3	Control room office	64.5	80.6	72.1
20	Oxygen Plant-02	Control Room Office	56.5	82.6	80.4
21	BB Plant	BB Plant Office	60.5	75.4	66.7
22	RMPP	Control Room Office	58.5	77.5	70.1
23	Coal Washary	Lab & Office Area	55.6	60.1	57.3
24	RMHS	RMHS Office	53.9	73.6	59.8
25	IBMD	New Sarpa MRP-II (Operator Cabin)	82.8	76.1	63.9

N: B- All employees are provided ear plug / earmuff in noise prone areas. Rotation of employees are being done to ensure less than 8 hrs. exposure in high noise area.

Tusarakanti Samal.
Section (I/C)

for Tusarakanti Samal.
Manager (Lab)

Maitreyee Dey
Sr. Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/106
Dt.02.03.2023

NOISE MONITORING REPORT
TATA STEEL Ltd. (FEB' 2023)

Work Zone Noise Monitoring Report for the month of Feb 2023					
S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
1	BF-2 Cast House	Control room	50	82	61.5
	BF-2 Cast House	Near B F-2 Furnance area	79.7	82.6	81.1
2	BF-2 Stock House	Control room office	53.7	81.4	61.2
3	Lime Plant	Inside office building	56.4	68.8	59.7
4	BF PP-1 Boiler-03	Near Control room office	60.7	68.8	64.5
5	Gas fired boiler 250 TPH Area	Office and Control Room	58.4	66.3	62.6
6	DRI	KILN NO-1(Near 1& 2 control room office)	55.8	65.5	63.3
	DRI	KILN NO-3(Near 3& 4control room office)	58.3	65.4	62.4
	DRI	KILN NO-5(Near 5& 6 control room office)	55.4	62.5	59.5
	DRI	KILN NO-7(Near 7& 8 control room office)	53.6	68.4	60.4
	DRI	KILN NO-9 (Near 9&10 control room office)	52.9	70.4	56.1
7	110 MW Power Plant	Boiler-01 (Near Boiler area)	82.7	85.5	84.3
	110 MW Power Plant	Boiler-02 (Near Boiler area)	83.7	86	84.4
	110 MW Power Plant	Boiler-03 (Near Boiler area)	81	83.1	82
	110 MW Power Plant	Boiler-04(Near Boiler area)	94.3	80.6	77.3
	110 MW Power Plant	Boiler-5 (Near Boiler area)	78.8	86.3	81.3
	110 MW Power Plant	Boiler-6 (Near Boiler area)	79.5	86.8	81.8
	110 MW Power Plant	Boiler-7(Near Boiler area)	78.1	81.2	80.8
	110 MW Power Plant	Boiler-8 (Near Boiler area)	74.5	88.2	81.4
	110 MW Power Plant	Boiler-9 (Near Boiler area)	80.7	85	84
8	BF-1 Cast House	Near B F-1 Furnance	75.4	79.2	77.2
9	BF-1 Stock House	BF-1 Office	62.4	71.9	65.8
10	Coal Washary	Lab & Office Area	62.4	74.4	65.3
11	RMHS	RMHS Office	53.2	63	61.2
12	IBMD	New Sarpa MRP-II (Operator Cabin)	50.8	71.4	57.7
		Office & Operator Cabin (Old MRP)	52.3	71.7	59.9
13	CRM	Near CRM Mill Complex Area	70.5	80.1	74.5
	CRM	Near ETP area	68.7	92	80.4
	CRM	Near GP-3 Zinc Pot	82.5	87	84.3
	CRM	Colour Coating Line	80.9	88.3	83.4

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Work Zone Noise Monitoring Report for the month of Feb 2023					
S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
	CRM	Mill-1	81.2	87.4	82.6
	CRM	Mill-2	86.3	97.1	89
	CRM	Mill-3	83	97.5	88.3
	CRM	CRM Plant Office	59	61.2	61
	CRM	ECL	84.3	85.8	85
	CRM	CRCA	84.3	86.7	85.2
	CRM	SPM	80	87	83.5
	CRM	RGM	76.6	84.5	81.7
14	Sinter Plant-1	9 m office room	56.2	75	62.9
	Sinter Plant-1	15 m office	67.4	76.4	69.2
	Sinter Plant-1	19 m office	58.2	66.4	63.9
	Sinter Plant-1	Store area	58.5	80.2	79.2
	Sinter Plant-1	Electrical office	57.6	80	66.4
15	Coke Oven-1	Control room office	60.8	70.8	65.7
	Coke Oven-1	Laboratory	60.4	67.2	63.1
16	Sinter Plant-02	Control Room Area	80	75.2	61.2
17	Sinter Plant-03	Control Room Area	63.6	76.2	65.4
	BOF Shop	BOF office area	52.8	67.3	58.7
18	BOF Shop	Near Wage bridge area	64.4	81.9	72.5
	SMS-2-FES-1&2	Booster House (ID Fan)	78.3	86.7	83.3
19	SMS-2-FES-1&2	Near Controlroom Area	59.3	68.7	61.4
	HSM	Near RHF Office area (Pulpit)	68.2	81.3	72.4
	HSM	Near Roll Shop area	71.5	86.2	77.8
20	HSM	Near HSM Quality Lab area	67.2	77.3	69
	HSM	DC pulpit office area	65.6	77.6	69.3
	HSM	FM area	81.1	91.3	84.3
	HSM	Near DC sampling Station	82	84.7	83.1
21	Coke Oven-2	Control Room Office	59.9	62	61.3
22	BFPP-2 Boiler-3	Control room office	66	78.6	69.9
23	Oxygen Plant-02	Control Room Office	62.1	72.3	63.6
24	BB Plant	BB Plant Office	51.6	79.3	63.6
25	RMPP	Control Room Office	52.7	83.6	64.4

N: B- All employees are provided ear plug / earmuff in noise prone areas. Rotation of employees are being done to ensure less than 8 hrs. exposure in high noise area.

A.K. Pradhan
Section (I/C)

Manager (Lab)

Majumdar
Sr. Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Ref.No. EMD/LAB/2022-23/114
Dt.05.04.2023

NOISE MONITORING REPORT
TATA STEEL Ltd. (MARCH' 2023)

Work Zone Noise Monitoring Report for the month of MARCH 2023					
S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
1	BF-2 Cast House	Control room	61.2	73.3	64.5
		Near B F-2 Furnace area	70.7	78.6	75.3
2	BF-2 Stock House	Control room office	60.3	66.4	63.7
3	Lime Plant	Inside office building	58.1	72.9	63.4
4	BF PP-1 Boiler-03	Near Control room office	63.8	80.8	68.3
5	Gas fired boiler 250 TPH Area	Office and Control Room	65.5	75.1	66.9
6	DRI	KILN NO-1(Near 1& 2 control room office)	55.9	67.7	64.5
		KILN NO-3(Near 3& 4control room office)	57.9	66.9	61.4
		KILN NO-5(Near 5& 6 control room office)	60.0	71.6	62.8
		KILN NO-7(Near 7& 8 control room office)	62.4	67.8	64.8
		KILN NO-9 (Near 9&10 control room office)	59.8	81.4	68.5
7	110 MW Power Plant	Boiler-03 (Near Boiler area)	81.8	83.7	82.7
		Boiler-6 (Near Boiler area)	84.0	86.0	84.9
		Boiler-7(Near Boiler area)	82.2	85.0	83.3
		Boiler-8 (Near Boiler area)	83.4	86.3	84.8
		Boiler-9 (Near Boiler area)	84.2	84.1	83.0
8	BF-1 Cast House	Near B F-1 Furnance	70.9	85.6	77.5
9	BF-1 Stock House	BF-1 Office	58.9	76.5	65
10	Coal Washary	Lab & Office Area	61.0	80.0	70.8
11	RMHS	RMHS Office	52.4	52.7	79.9
12	IBMD	New Sarpa MRP-II (Operator Cabin)	55.7	84.5	67.9
		Office & Operator Cabin (Old MRP)	58.3	69.6	61.7
13	CRM	Near CRM Mill Complex Area	71.9	82.8	74.3
		Near T.L.L	82.2	86.2	82.9
		Near ETP area	85.6	86.5	85.7
		Near GP-1 Zinc Pot	82.2	89.6	86.4
		Near GP-2 Zinc Pot	83.2	93.6	86.8

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800

Environment Laboratory
TATA Steel Meramandali, Odisha

Work Zone Noise Monitoring Report for the month of MARCH 2023					
S.N	Name of the unit	Location	Noise level in dB(A)		
			Min	Max	Leq
	CRM	Near GP-3 Zinc Pot	84.7	87.4	85.5
		Colour Coating Line	80.8	88.8	83.0
		CRM Plant Office	60.4	63.9	62.3
		CRCA	84.3	86.2	85.0
		SPM	83.9	92.4	85.8
		RGM	81.2	85.3	82.4
14	Sinter Plant-1	9 m office room	67.4	70.4	68.7
		15 m office	67.6	70.5	68.3
		19 m office	67.7	72.1	70.1
		Store area	64.1	78.4	69.2
		Electrical office	61.0	67.3	63.6
15	Coke Oven-1	Control room office	57.7	80.9	70.4
		Laboratory	66.5	78.7	69.6
16	Sinter Plant-02	Control Room Area	66.9	73.0	69.3
17	Sinter Plant-03	Control Room Area	66.7	69.5	67.4
18	BOF Shop	BOF office area	61.2	69.0	67.3
		Near Weigh bridge area	69.9	86.7	75.8
19	SMS-2-FES-1&2	Booster House (ID Fan)	79.4	87.9	82.3
		Near Control room Area	68.4	73.8	70.0
20	HSM	Near RHF Office area (Pulpit)	81.8	84.5	82.9
		Near Roll Shop area	79.8	85.0	81.7
		Near HSM Quality Lab area	51.7	57.2	54.6
		DC pulpit office area	60.9	79.1	67.4
		FM area	85.6	97.5	89.6
		Near DC sampling Station	83.8	88.4	84.1
21	Coke Oven-2	Control Room Office	51.5	69.0	58.4
22	BFPP-2 Boiler-3	Control room office	59.2	61.4	60.7
23	Oxygen Plant-02	Control Room Office	63.8	84.9	73.7
24	BB Plant	BB Plant Office	80.6	82.6	81.6
25	RMPP	Control Room Office	61.9	87.8	72.3

N: B- All employees are provided ear plug / earmuff in noise prone areas. Rotation of employees are being done to ensure less than 8 hrs. exposure in high noise area.

A.K. Pradhan
Section (I/C)

Manager (Lab)

Maitreyee Das
Sr. Manager (Lab I/C)

...End Report...

Works: At- Narendrapur,P.O- Kusupanga,Via-Meramandali,Dhenkanal,Odisha-759121,Tel: 6764-229800