



To
The Deputy Director General of Forests (C),
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office, Kolkata IB – 198,
Sector – II, Salt Lake City, Kolkata-700106

HMC/HC/ENV-MoEF/2025/009
25th Nov 2025

Sub: Six Monthly report from Apr '25 to Sep'25 for Environment clearance in respect of Tata Steel Hooghly Met Coke Division, Haldia

Reference:

1. MoEF & CC Letter no. F. No. J11011/284/07-IA II dated 29th January' 2008 of Tata Steel Ltd, Hooghly Met coke Division, Haldia.
2. MoEF & CC EC Letter no. J-11011/284/2007- IA II (I) dated 23rd February' 2017 of Tata Steel Limited, Hooghly Met Coke Division, Haldia.

Dear Sir,

With reference to the above cited subject, kindly find enclosed Six monthly compliance report for the period from Apr'25 to Sep'25 for the condition stipulated in Environmental clearance granted to Tata Steel Limited, Hooghly Met coke Division, Haldia for your kind consideration.

We trust the information furnished is in line with your requirement

Thanking you,
Yours faithfully

Mantu Patra
General Manager
Tata Steel Ltd, Hooghly Met coke Division, Haldia

1. The Zonal Officer, CPCB, South end Conclave, Block – 502, 5th & 6th Floor, 1582, Razidanaa, Main Road, Kolkata, 700107
2. The Member Secretary, West Bengal Pollution control board, Paribesh Bhavan, 10 A, Broadway Road, LA Block, Sector III,, Bidhan Nagar Kolkata, West Bengal-700106
3. Regional Officer, West Bengal Pollution Control Board (WBPCB),Haldia Regional Office, Raghunathchak, PO- Barghasipur, PS – Bhabani pur, Dist – Purba Medinipur, Pin- 721657
4. Addl. Principal Chief Conservator of Forests (C), MoEF & CC, Regional Office East Zone, A/3, Chandrasekharpur, Bhubaneswar, 751023

TATA STEEL LIMITED

ONLINE SUBMISSION CONFIRMATION OF
EC COMPLIANCE REPORT IN PARIVESH
2.0 PORTAL

Your (Half Yearly Compliance Report) has been Submitted with following details	
Proposal No	HMC/ENV/246
Compliance ID	573503378
Compliance Number(For Tracking)	EC/M/COMPLIANCE/573503378/2025
Reporting Year	2025
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	01-12-2025
RO/SRO Name	Shri Senthil Kumar Sampath
RO/SRO Email	agmu156@rfs.nic.in
State	WEST BENGAL
RO/SRO Office Address	Integrated Regional Offices, Kolkata
Note: - SMS and E-Mail has been sent to Shri Senthil Kumar Sampath, WEST BENGAL with Notification to Project Proponent.	

Your (Half Yearly Compliance Report) has been Submitted with following details	
Proposal No	IA/WS/IND/30491/2014
Compliance ID	651644978
Compliance Number(For Tracking)	EC/M/COMPLIANCE/651644978/2025
Reporting Year	2025
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	01-12-2025
RO/SRO Name	Shri Senthil Kumar Sampath
RO/SRO Email	agmu156@rfs.nic.in
State	WEST BENGAL
RO/SRO Office Address	Integrated Regional Offices, Kolkata
Note: - SMS and E-Mail has been sent to Shri Senthil Kumar Sampath, WEST BENGAL with Notification to Project Proponent.	

ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT

April 2025 to 2025

**Tata Steel Limited,
Hooghly Met Coke Division**

**Six Monthly Compliance Status report
of
Environmental Clearance of Coke Oven Plant (1.6 MTPA) & WHRB based
power plant (120 MW) at Haldia
&
Environment Clearance of Expansion of Coke Oven Plant 1.6 to 2.2 MTPA at
Haldia**

ENVIRONMENTAL MANAGEMENT DEPARTMENT

Compliance to conditions stipulated in the Environmental Clearance Order for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi vide letter No. F. No. J-11011/284/07- IA II (I) dated 29th January 2008

S. N	Condition	Compliance Status
A. Specific Conditions:		
(i)	Proper and full utilization of coke oven gases in power plant using heat recovery steam generators (WHRB) shall be ensured and no flue gas shall be discharged into the air.	The coke oven gas is utilized in power plant using heat recovery steam generators (WHRB) and no flue gas is discharged into the air.
(ii)	The prescribed emission standards for coke oven plants as notified vide notification no. GSR-46(E) dated 3rd February 2006 shall be complied with.	The prescribed emission standards for coke oven plants as notified vide notification no. GSR-46(E) dated 3rd February 2006 are complied.
(iii)	Continuous stack monitoring facilities for all the major stacks and adequate air pollution control systems shall be provided to control air emissions within 100 mg/Nm ³ and reports submitted to the Ministry's Regional Office at the Bhubaneswar, WBPCB & CPCB.	Continuous stack monitoring facilities for all the major stacks has been provided along with adequate air pollution control systems to control air emissions within 100 mg/Nm ³ . The Stack emission (avg.) report for last six month (April'25 -September'25) is enclosed as Annexure-1 .
(iv)	Fugitive emissions from coal handling plant shall be controlled by sprinkling water. Dry fogging system shall be installed at all the transfer points. In-plant control measures like bag filters, dedusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources including material handling areas and material transfer points.	Dust Suppression System with Dry fog system (DFS) are in operation at all the coal transfer points, in Wagon Tippler and Coal crusher unit. Rain Gun Water Sprinklers have been installed in the coal yard. Road inside the material handling area (Coal / Coke / Tippler area) has been paved to reduce dust generation. The entire coal yard and coke yard have been concreted to prevent dust generation. Mobile Water sprinkling is done on roads within factory and in the periphery area. Mechanised Mobile Vacuum Cleaning system is used regularly for collecting the secondary fugitive emission from internal roads. Stationary vacuum cleaning machine has been provided at Wagon Tippler to prevent fugitive dusts/ spillage. Bag filters has been installed at coal & coke transfer points.
(v)	Secondary fugitive emissions shall be controlled within the prescribed limits, regularly monitored and records maintained. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed	Secondary fugitive emissions are being monitored regularly and is being ensured within in prescribed limits.
vi)	Total requirement of the water from Haldia Development Authority for coke oven and WHRB shall not exceed 5,300 m ³ /day and 13,750 m ³ /day respectively. The effluent shall be treated in the effluent treatment plant and all the treated wastewaters shall be recycled and reused either in the process or for dust suppression or green belt development. No wastewater shall be discharged outside the factory premises and 'Zero' discharge shall be adopted. Domestic effluent shall	The average water taken from HDA as make-up water was 1181.8 m ³ /day for coke oven (Tata Steel, Hooghly Met coke) and 6117.9 m ³ /day for WHRB (Tata Power). The processed water is recycled and used for coke quenching and green belt development within the plant. Zero Effluent Discharge is maintained, and the following initiatives are taken for the same: <ul style="list-style-type: none"> A Storm water pond of having water holding capacity of 6,500 m³ has been

Compliance to conditions stipulated in the Environmental Clearance for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi vide letter No. F. No. J-11011//284/07- IA II (I) dated 29th January 2008

S. N	Condition	Compliance Status
A. Specific Conditions:		
	be treated in sewage treatment plant (STP) and disposed off as per norms laid down by Haldia Municipal Corporation.	<p>developed to collect wastewater for reuse inside plant.</p> <ul style="list-style-type: none"> • Pipeline has been laid in all 4 rows for use the same water for coke Quenching purpose. • Pump has been installed at the end of Row#4 drain final outlet to re-circulate the water in the quenching pond. • The domestic effluent generated from the canteen and office buildings is recycled through STP and the outlet water is being used for gardening.
(vii)	Permission for the drawl of water from Haldia Development Authority shall be obtained and recommendations implemented.	Permission for the drawl of water from Haldia Development Authority has been obtained by Tata Power and we are taking water from tata power for our operations with due payment of consumed water.
(viii)	Coal and coke fines shall be recycled and reused in the process. All the other solid waste including broken refractory mass shall be properly disposed of in environment-friendly manner. The waste oil shall be properly disposed of as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments.	Coal fines are recycled in the coke making process and coke fines are re-used at out integrated steel plant at Tata Steel Jamshedpur. Refractory wastes are reused in internal road and parapet wall making in side plant premises. Wastes like ceramic blankets, empty oil drums, Oil contaminated wastes are disposed through the authorized CHWTSDF. Used oil generated from the process are sent to authorized re-processor.
(ix)	All the environment management measures given in the EIA/EMP shall be implemented and complied with.	The environmental management measures given in the REIA are implemented and being complied with.
(x)	As proposed, green belt shall be developed in 27% area as per the CPCB guidelines in consultation with DFO.	32.5 % green cover is developed within the plant premises.

S. N	Condition	Compliance status
B. GENERAL CONDITIONS:		
(i)	The project authority shall adhere to the stipulations made by West Bengal Pollution Control Board (WBPCB) and State Government.	We are adhering to the conditions made by West Bengal Pollution Control Board (WBPCB) and State Government.
(ii)	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	Prior approval from MoEF&CC has been obtained vide F. No. J 11011//284/2007-IA II (I) dated: 23 February 2017 for Expansion of Coke Oven Plant from 1.6 MTPA to 2.2 MTPA

Compliance to conditions stipulated in the Environmental Clearance Order for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi vide letter No. F. No. J-11011/284/07- IA II (I) dated 29th January 2008

S. N	Condition	Compliance status
B. GENERAL CONDITIONS:		
(iii)	The gaseous emissions from various process units shall conform to the load/mass-based standards notified by this Ministry on 19th May 1993 and standards prescribed from time to time. The West Bengal Pollution Control Board (WBPCB) 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. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	Complying all the conditions stipulated by WBPCB. e.g., the stack emission standard prescribed by WBPCB is 50 mg/Nm ³ which is being maintained in last six months.
(iv)	Ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the WBPCB. Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality shall be carried out regularly in consultation with WBPCB and data submitted to the Ministry's Regional Office at the Bhubaneswar, WBPCB & CPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time	Ambient Air Quality Monitoring Stations have been installed, which is submitted to WBPCB on monthly basis. Regular Ambient Noise Monitoring is conducted through 3rd party. The instruments used for ambient air quality monitoring by NABL accredited laboratory is being calibrated time to time. AAQ & Noise monitoring reports are attached as Annexure-1 .
(v)	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night-time).	Adequate Noise Control measures such as silencers, enclosures, hoods, rubber pads, have been provided at the appropriate places in the existing plant. Workers working at work areas where noise levels are high, are provided earplugs and earmuffs to reduce the noise exposure. Regular Noise Monitoring is conducted, and the noise level is found within prescribed limits. Noise monitoring reports are attached as Annexure-1 .
(vi)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act	PME (Periodical Medical Examination) has been done for all company employees has been done and records are being maintained at our occupational Health Centre. Health check-up for contractors' persons is conducted regularly during the time of the renewal of the respective gate pass.
(vii)	All the recommendations mentioned in the Corporate Responsibility for Environmental Protection (CREP) of CPCB issued	Recommendations mentioned in the Corporate Responsibility for Environmental Protection (CREP) of CPCB issued for the steel plants are implemented.

Compliance to conditions stipulated in the Environmental Clearance Order for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi vide letter No. F. No. J-11011//284/07- IA II (I) dated 29th January 2008

S. N	Condition	Compliance status
B. GENERAL CONDITIONS:		
	for the steel plants shall be implemented	Implementation status is attached as Annexure-2.
(viii)	The company shall undertake ecodevelopment measures including community welfare measures in the project area.	The local people nearly 256 people as permanent employee and over 850 as contractual employees are being employed by the company. Four drinking water projects on Infrastructure development in schools has been executed during FY'25 & in FY26 there will be 7 infrastructure project are going on in different schools surrounding HMC. Apart from this Employees are engaged in Black board painting of peripheral schools, awareness sessions to school students through volunteering wings for CSR .
(ix)	The company shall develop rainwater harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	A Rainwater Harvesting Pond (storm water pond) of capacity ~ 6,500 m ³ has been developed. Roof water from all building (ADM building / Store / Laboratory / pump house) are collected in the storm water pond through common storm water drain. The collected water is utilized in coke quenching and other purposes like gardening, water sprinkling on roads, etc.
(x)	Proper housekeeping and adequate occupational health programmes shall be taken up.	To maintain proper housekeeping inside plant, the following actions are taken: <ul style="list-style-type: none"> • Dedicated team has been appointed for removal of scarps and maintaining proper housekeeping within the plant. • "Colour Coded Bins have been provided at various location for waste segregation at source. • Hazardous wastes are stored under covered shed above concrete flooring. • Mobile vacuum cleaning machine are operated for evacuating the dust particles. • Regular Housekeeping Audit is being conducted to improve the housekeeping in the plant. • Biomedical wastes are sent to Ramky for proper disposal. • Periodic medical check-ups are conducted in OHC.
(xi)	A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	Environmental Management Section with a qualified designated employee reports directly to the General Manager of the unit vis-a -vis functionally report to Head Environment Compliances & Clearances, TSJ. The Corporate Environment Management Cell of Tata Steel, Jamshedpur headed by Chief – Environment and respective Heads – Environment also monitors and supervises the environmental activities of the HMC division at a regular basis.

Compliance to conditions stipulated in the Environmental Clearance Order for Coke Oven Plant (1.6 MTPA) & WHRB (120 MW) at Haldia, East Midnapur, West Bengal from MoEF, New Delhi vide letter No. F. No. J-11011//284/07- IA II (I) dated 29th January 2008

S. N	Condition	Compliance status
B. GENERAL CONDITIONS:		
(xii)	Adequate funds shall be allocated towards the capital cost and recurring cost/annum environmental pollution control measures and utilized judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	Adequate funds has been allocated and utilized judiciously for environment management activities like dust suppression by water spraying & sprinkling system, mobile vacuum cleaning system for controlling dust in work area, installation & regular maintenance of DF system to control fugitive emission, installation and maintenance of Online ambient air quality monitoring system, monitoring the environment parameters by third party regularly, Green Belt development.
(xiii)	The Regional Office of this Ministry at Bhubaneswar / CPCB / WBPCB shall monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Six monthly compliance report along with the monitoring data is submitted regularly to MOEF, Regional Office, Bhubaneswar/ Regional Office Haldia/ WBPCB/ CPCB. Last six-monthly compliance report was submitted on vide letter no. HMC/HC/ENV-MoEF/2025/003 dated: 29.05.2025.
(xiv)	The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	It has been complied as the project has already been completed and Consent to Operate has been issued by West Bengal State Pollution Control Board.
(xv)	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 W. B. Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in . This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office at Bhubaneswar.	Public notice regarding grant of environment clearance has been advertised in two Local newspapers viz. Financial Express – (English Adv.) / Aajkal – (Bengali Adv.) dated 8.03.2008. The compliance of the same was informed to MoEF (Regional Office, Bhubaneswar) vide letter dated: 11.03.2008 by post.

Compliance to conditions stipulated in the Environmental Clearance for Expansion of Coke Oven plant (1.6 MTPA to 2.2 MTPA) of Tata Steel Ltd., at Haldia, East Midnapur, West Bengal from MoEF&CC, New Delhi on vide F. No. J-11011/284/2007- IA. II (I) dated 23 February 2017

S. N	Condition	Compliance status
B.	Specific conditions	
i.	The project proponent should install 24X7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.	Continuous stack monitoring facilities provided in process stacks & reports are being submitted to ministry & its regional office. The unit maintains the Zero Effluent Discharge.
ii.	The ETP for coke oven by-product should be designed to meet EPA notified standards especially the cyanide and phenol.	The unit operates under Non recovery coke making technology. There is no by-product section.
iii.	Coke oven plant should meet visible emission standards notified by the MoEF&CC.	The unit is meeting the visible emission standard.
iv.	All the effluents shall be treated and used for dust suppression and green belt development. No effluent shall be discharged outside the premises via drains and 'Zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment plant.	The processed water is recycled and used for coke quenching, road sprinkling and green belt development within the plant. Zero Effluent Discharge is maintained. Domestic wastewater is being treated in sewage treatment plant (STP) and used in garden.
v.	Coal and coke fines shall be recycled and reused in the process. The breeze coke and dust from the air pollution control system shall be reused in sinter plant. The waste oil shall be properly disposed of as per the Hazardous waste (Management, Handling, Handling and Transboundary Movement) Rules, 2016.	Coal and coke fines are reused and recycled in the process. Swamp breeze is sold to briquette manufacture. Used Oil and other hazardous wastes are being disposed to authorized recycler and CHWTSDF, Haldia.
vi.	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50mg/Nm ³ by installing energy efficient technology	On-line Ambient Air Quality Monitoring Station (CAAQMS) and Continuous stack monitoring facilities has been installed along with adequate air pollution control systems to control air emissions within 50 mg/Nm ³ .
vii	In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emission from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points. Bag filters shall be provided to hoods and dust collectors. Water sprinkling system shall be provided to control secondary fugitive dust emission generated during screening, loading, unloading, handling and storage of raw materials etc.	Bag filters has been installed at coal & coke transfer points. Dust Suppression System with Dry fog system (DFS) are in operation at all the coal transfer points, in Wagon Tippler and Coal crusher unit. Rain Gun Water Sprinklers have been installed in the coal yard. Mobile Water sprinkling is done on roads within factory and in the periphery area. Mechanised Mobile Vacuum Cleaning system is used regularly for collecting the secondary fugitive emission from internal roads. Stationary vacuum cleaning machine has been provided at Wagon Tippler to prevent fugitive dusts/ spillage.

Compliance to conditions stipulated in the Environmental Clearance for Expansion of Coke Oven plant (1.6 MTPA to 2.2 MTPA) of Tata Steel Ltd., at Haldia, East Midnapur, West Bengal from MoEF&CC, New Delhi on vide F. No. J-11011/284/2007- IA. II (I) dated 23 February 2017

S. N	Condition	Compliance status
B.	Specific conditions	
viii	The standards issued by the ministry vide G.S.R.277(E) dated 31st march, 2012 shall be strictly adhered to and the standards prescribed for the coke oven plant shall be monitored and the report should be submitted along with the six-monthly compliance report.	The standards issued by the ministry vide G.S.R.277(E) dated 31st march, 2012 is for the Coke Oven (by-product type) and HMC coke oven batteries are operated under Non – recovery type technology. However, we are strictly adhering to the standards prescribed in our consent to operated issued by WBPCB.
ix	Multistage scrubber, cyclone and bag filters etc. to control particulate emissions within the prescribed limits from coke oven shall be provided. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standard notified under environment (Protection) Act shall be followed. The reports shall be submitted to the ministry Regional Office, CPCB and SPCB.	Bag filters have been provided in transfer points of coal & coke circuits to control fugitive emission. Carbon monoxide (CO) is being monitored regularly. Stack monitoring report of last six months are attached as Annexure-1 .
x	Efforts shall further be made to use maximum water from the rainwater harvesting sources. If need, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air-cooled condensers shall be explored, and closed-circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly	A Storm water pond of capacity 6,500 Cum (approx.) has been developed. Pipeline has been laid in all 4 rows for use the same water for coke Quenching purpose pump has been installed at the end of Row#4 drain final outlet to re- circulate the water in the quenching pond. Use of air-cooled condensers will be explored
xi	existing plant operations, the amount of carbon sequestered annually by the existing green belt and the quantum of equivalent CO ₂ that will be emitted due to the proposed expansion shall be prepared by the project proponent and submitted to the ministry and the regional office of the ministry. This shall be prepared every year by the project proponent. The first such budget shall be prepared within a period of 6 months and subsequently it should be prepared every year	We have assessed our carbon emission on month on month basis. This initiative is a part of our ongoing effort to evaluate and improve our environmental performance proactively. This data generated is systematically analysed to identify opportunities for emission reduction and efficiency enhancement.
xii	For the employees working in high temperature zones falling in the plant operations areas, the total shift duration would be 4hrs or less per day where the temperature is more than 50°C. Moreover, the jobs of these employees will be alternated in such a way that no employee is subjected to working in high temperature area for more than 1 hr continuously, such employee would be invariably provided	As the unit coke oven batteries are working under negative pressure the working temperature never exceed 40°C. Workers generally works there for cleaning purpose only. It ensures that they never work continuously in that area. Employees are being provided with proper PPEs like safety helmet, FR jacket, Safety shoe, Safety goggles, Nose mask, hand gloves etc. and sufficient drinking water facilities are being provided inside the premises.

Compliance to conditions stipulated in the Environmental Clearance for Expansion of Coke Oven plant (1.6 MTPA to 2.2 MTPA) of Tata Steel Ltd., at Haldia, East Midnapur, West Bengal from MoEF&CC, New Delhi on vide F. No. J-11011//284/2007- IA. II (I) dated 23 February 2017

S. N	Condition	Compliance status
B.	Specific conditions	
	with proper protective equipment's, garments, and gears such as head gear, clothing gloves, eye protection etc. there should also be an arrangement for sufficient drinking water at site to prevent dehydration etc.	
xiii	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the state pollution control board / described under the E(P)Act. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional office, SPCB and CPCB.	Regular monitoring of effluent , surface and ground water is being carried out by NABL accredited Laboratory to ensure the water quality parameters with in the norms.
xiv	Risk assessment and disaster management plan for the project focusing on Disaster prevention shall be prepared and implemented in conjunction with district Disaster Management plan	Onsite Emergency Plan of HMC is prepared and implemented at site.
xv	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal	Swamp breeze is being sold to briquette manufacturers for reutilization of its fuel value. Wastes like ceramic blankets, empty oil drums, Oil contaminated wastes are disposed through the authorized TSDF. Used oil generated from the process are sent to authorized re-processor.
xvi	All the recommendation made in the charter on corporate responsibility for environment protection (CREP) for the steel plants and coke oven plants shall be implemented.	Recommendations mentioned in the Corporate Responsibility for Environmental Protection (CREP) of CPCB issued for the steel plants are implemented. Implementation status is attached as Annexure-2 .
xvii	Green belt shall be developed in 33% of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO	32.4% green cover is developed within the plant premises and further measures are being taken to increase the green cover area.
xviii	At least 2.5% of the total cost of the project shall be earmarked towards the enterprise social commitment based on public hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the ministry's regional office. Implementation of such program shall be ensured by constituting a committee comprising of the proponent, representatives of village panchayat and District	Agreed & will be followed accordingly

Compliance to conditions stipulated in the Environmental Clearance for Expansion of Coke Oven plant (1.6 MTPA to 2.2 MTPA) of Tata Steel Ltd., at Haldia, East Midnapur, West Bengal from MoEF&CC, New Delhi on vide F. No. J-11011//284/2007- IA. II (I) dated 23 February 2017

S. N	Condition	Compliance status
B.	Specific conditions	
	Administration. Action taken report in this regard shall be submitted to the ministry's Regional Office.	
xix	The proponent shall prepare a detailed CSR plan for every year for the next 5 years for the existing – cum-expansion project, which includes village- wise, sector- wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR plan will be including the amount of 2% retain annual profits as provided for in clause 135 of the companies' act ,2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the plan shall be submitted as part of the compliance report to RO. The details of the CSR plan shall also be uploaded on the company website and shall also be provided in the annual report of the company. The plan so prepared shall be based on SMART (Specific, Measurable, Achievable, Relevant and time bound) concept. The expenditure should be aimed at sustainable development and direct free distribution and temporary relief should not be included	This is a Division of Tata Steel for coke making unit which is used for steel making at JSR. The division is not a profit centre and has no separate book of accounts. Tata Steel Foundation drives the CSR activity of all units including HMC and allot the budget accordingly which is within 2% of Company (Tata Steel) profit.
xx	The company shall submit their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process / procedure to being into focus any infringement / deviation/violation of environmental or forest norms/ conditions, (ii) Hierarchical system or administrative order of the company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of noncompliance/ violation environmental norms to the board of	Tata Steel's Corporate environment policy is followed by HMC division

Compliance to conditions stipulated in the Environmental Clearance for Expansion of Coke Oven plant (1.6 MTPA to 2.2 MTPA) of Tata Steel Ltd., at Haldia, East Midnapur, West Bengal from MoEF&CC, New Delhi on vide F. No. J-11011//284/2007- IA. II (I) dated 23 February 2017

S. N	Condition	Compliance status
B.	Specific conditions	
	directors of the company and/or stakeholders	
xxi	All the commitments made to the public during the public Hearing / Public Consultation meeting shall be satisfactorily implemented and a separated budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office	There was no public Hearing / Public Consultation taken place. Public Hearing was exempted in the TOR condition
xxii	Haulage roads shall be sprinkled with water at regular intervals for which water tankers with sprinkler arrangement is deployed. Regular sweeping of roads shall be practiced with vacuum sweeping machine or water flushing to minimize dust	Water sprinkling arrangements are made to control the fugitive emissions from coal handling plant. More than 2.5 Kilometres of the road inside the material handling area (Coal / Coke / Tippler area) has been paved to reduce dust generation. Water sprinkling is done through mobile tankers with water sprinkling arrangement on roads within factory and in the periphery area. Mechanised Mobile Vacuum Cleaning system is used regularly for arresting the fugitive emission. Stationary vacuum cleaning machine has been provided at Wagon Tippler to prevent fugitive dusts.
xxiii	Trucks carrying coal and other raw material shall be covered with tarpaulin to prevent spreading of dust during transportation	At HMC the raw material transported through tarpaulin covered rail only. Inside the plant the raw materials transported through covered conveyor belt only.
xxiv	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe Drinking water, medical health care etc. The housing may be in the form of temporary structures to be removed after the completion of the project	Noted and shall be complied.

S. N	Condition	Compliance status
B.	General conditions	
i.	The project authorities must strictly adhere to the stipulations made by the West Bengal Pollution Control Board and the state government.	Agreed .we will strictly adhere to the stipulations made by the West Bengal Pollution Control Board and the state government
ii.	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	Agreed. There will be no further expansion or modification of the plant without prior approval of this Ministry.
iii.	At least four ambient air quality monitoring stations should downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO2 and NOx are anticipated	Five Ambient air quality monitoring stations are installed & monitoring is being done regularly & submitted to WBPCB every month Data on ambient air quality and stack emission is regularly submitted

Compliance to conditions stipulated in the Environmental Clearance for Expansion of Coke Oven plant (1.6 MTPA to 2.2 MTPA) of Tata Steel Ltd., at Haldia, East Midnapur, West Bengal from MoEF&CC, New Delhi on vide F. No. J-11011/284/2007- IA. II (I) dated 23 February 2017

	in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its regional office at Orissa and the SPCB/CPCB once in six months.	along with six monthly EC compliance report. Reports of last six months is attached as Annexure-1 .
iv.	Industrial Wastewater shall be properly collected, treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19th may, 1993 and 31st December 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose	A Storm water pond of having 6,500 Cum capacity has been developed to collect wastewater & Pipeline has been laid in all 4 rows for use the same water for coke Quenching purpose. Pump has been installed at the end of Row#4 drain final outlet to re- circulate the water in the quenching pond. The water is being monitored through NABL accredited Laboratory.
v.	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Adequate Noise Control measures such as silencers, enclosures, hoods, rubber pads, have been provided at the appropriate places in the existing plant. Workers working at work areas where noise levels are high, are provided earplugs and earmuffs to reduce the noise exposure. Regular Noise Monitoring is conducted, and the noise level is found within prescribed limits. Noise monitoring report is attached as Annexure-1 .
vi.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	PME (Periodical Medical Examination) has been done for all company employees has been done and records are being maintained at our occupational Health Centre. Health check-up for contractors' persons is conducted regularly during the time of the renewal of the respective gate pass.
vii.	The company shall develop rainwater harvesting structures to harvest the rainwater for utilization in the lead season besides recharging the ground water table.	A Storm water pond of capacity 6,500 Cum (approx.) has been developed. Pipeline has been laid in all 4 rows for use the same water for coke Quenching purpose pump has been installed at the end of Row#4 drain final outlet to re-circulate the water in the quenching pond. Use of air-cooled condensers will be explored
viii.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	The environmental management measures given in the REIA are implemented and being complied with. The local people as permanent employee and contractual employees are being employed by the company. Four drinking water projects on Infrastructure development in schools has been executed during FY'25 & in FY26 there will be 7 infrastructure project are going on in different schools surrounding HMC. Apart from this Employees are engaged in Black board painting of peripheral schools, awareness sessions to school students through volunteering wings for CSR

Compliance to conditions stipulated in the Environmental Clearance for Expansion of Coke Oven plant (1.6 MTPA to 2.2 MTPA) of Tata Steel Ltd., at Haldia, East Midnapur, West Bengal from MoEF&CC, New Delhi on vide F. No. J-11011//284/2007- IA. II (I) dated 23 February 2017

ix.	Requisite funds shall be earmarked towards capital cost and recurring cost/ annum for environment pollution control measures to implement the condition stipulated by the ministry of environment, Forest and Climate change (MoEF&CC) as well as the state government. An implementation schedule for implementing all the condition stipulated herein shall be submitted to the regional office of the ministry at Orissa. The funds so provided shall not be diverted for any other purpose.	Adequate funds has been allocated and utilized judiciously for environment management activities like dust suppression by water spraying & sprinkling system, mobile vacuum cleaning system for controlling dust in work area, installation & regular maintenance of DF system to control fugitive emission, installation and maintenance of Online ambient air quality monitoring system, monitoring the environment parameters by third party regularly, Green Belt development.
x.	A copy of clearance letter shall be sent by the proponent to concern Panchayat, Zila parishad / Municipal Corporation, Urban local body and the local NGO, If any, from whom suggestion/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.	Complied.
xi	The Project proponent shall upload the status of the stipulated environmental clearance conditions, including results of monitored data on their website and shall simultaneously be sent to the Regional Office of the MOEFCC at Orissa. The respective zonal office of CPCB and the SPCB. The criteria pollutant levels namely, PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicate for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain update the same periodically.	Environment Clearance Status is being uploaded in our website and six-monthly compliance report along with the monitoring data is being submitted to IRO, Kolkata, Zonal Office CPCB, Member secretary, WBPCB & Regional Office WBPCB, Haldia. Last six-monthly compliance report was submitted on 29.05.2025.
xii.	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by email) to the regional office of MOEFCC, the respective Zonal office of CPCB and the SPCB. The Regional office of this ministry at Orissa /CPCB / SPCB shall monitor the stipulated conditions.	Six monthly compliance report along with the monitoring data shall be submitted to IRO, Kolkata , Zonal Office CPCB, Member secretary , WBPCB & Regional Office WBPCB, Haldia (both in hard copy & email)
xiii.	The environmental statement for each financial year ending 31st march in form V as is mandated to be submitted by the project proponent to the concerned state pollution control	Environmental Statement is submitted on time. Environmental Statement for FY24 was submitted vide TSL/HMC/ENV/ FY25/007 dated: 25.09.2025

Compliance to conditions stipulated in the Environmental Clearance for Expansion of Coke Oven plant (1.6 MTPA to 2.2 MTPA) of Tata Steel Ltd., at Haldia, East Midnapur, West Bengal from MoEF&CC, New Delhi on vide F. No. J-11011//284/2007- IA. II (I) dated 23 February 2017

	Board 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 environmental conditions and shall also be sent to the respective Regional Office of the MOEFCC at Orissa by e-mail.	
xiv.	The project proponent shall inform the public that the project has been accorded environmental clearance by the ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of environment, Forest and Climate change (MoEFCC) at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the regional office at Orissa.	Communication regarding grant of environment clearance for expansion project of Coke Oven Plant from 1.6 MTPA to 2.2 MTPA vide F. No. J11011//284/2007- IA II (I) was published in the newspapers viz., The Times of India, The Economic Times, and The Business Standards, dated 24 February 2017.
xv.	Project authorities shall inform the regional office as well as the ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work	Noted and shall be complied.

Annexure-1: Environment Monitoring reports

Stack Emission Monitoring Report Monthly average For period April'25 to September'25						
Stack Name	SPM (mg/Nm ³)		SO ₂ (mg/Nm ³)		NO _x (mg/Nm ³)	
	Prescribed Limit	Result	Prescribed Limit	Result	Prescribed Limit	Result
Chimney 1AB	50	20.10	800	302.50	500	126.00
Chimney 1CD	50	22.32	800	321.75	500	135.83
Chimney 2AB	50	19.80	800	289.00	500	128.83
Chimney 2CD	50	20.98	800	288.40	500	124.33
Chimney 3AB	50	20.28	800	354.00	500	152.00
Chimney 3CD	50	21.92	800	334.60	500	146.83
Chimney 4AB	50	23.81	800	356.75	500	153.22
Chimney 4CD	50	20.45	800	313.33	500	145.17

Online Stack Emission Monitoring Report for SPM (in mg/Nm³) For Period: April'25- September'25							
Stack	Apr'25	May'25	Jun'25	Jul'25	Aug'25	Sep'25	Average
Chimney 1AB	26.24	28.32	24.09	25.57	25.68	25.68	25.93
Chimney 1CD	24.45	26.22	23.83	22.43	26.59	27.42	25.16
Chimney 2AB	21.63	24.17	21.58	19.09	20.93	24.32	21.95
Chimney 2CD	27.76	27.67	26.98	27.02	25.01	18.25	25.45
Chimney 3AB	19.9	19.65	18.36	19.06	18.87	17.97	18.97
Chimney 3CD	26.43	26.46	27.88	28.33	28.03	27.56	27.45
Chimney 4AB	20.77	29.19	29.64	25.19	25.48	25.81	26.02
Chimney 4CD	24.27	23.91	25.8	29.07	34.95	30.2	28.03

AMBIENT AIR QUALITY MONITORING REPORT Period: April'25 to September'25													
Sl. No	Sampling Stations	PM 10 µg/m ³	PM _{2.5} µg / m ³	SO ₂ µg/ m ³	NO _x µg / m ³	CO mg/m ³	Ozone (O ₃) µg/ m ³	Lead (Pb) µg/m ³	Ammonia (NH ₃) µg/ m ³	Benzene (C ₆ H ₆)	Benzo (a) Pyrene ng / m ³	Arsenic (As) 3 ng / m	Nickel (Ni) ng/m ³
1	Near CCR (Centre)	90.6	43.8	31.1	40.6	<0.01	<4.2	47.3	22.4	0.6	<0.5	<1.0	<5.0
2	Back Side of ADM Building (South side)	79.9	36.5	27.1	38.9	<0.04	<4.2	35.3	18.4	0.5	<0.5	<1.0	<5.0
3	Near Coal Yard (East Side)	98.6	48.3	31.8	42.8	<0.04	<4.2	42.2	18.8	0.7	<0.5	<1.0	<5.0
4	Patikhali Gate (North Side)	92.4	47.0	35.3	45.2	<0.01	<4.2	46.3	22.7	0.7	<0.5	<1.0	<5.0
5	Near Simplex Gate / ENS office (West Side)	85.9	39.7	30.3	41.5	<0.02	<4.2	42.3	19.9	0.6	<0.5	<1.0	<5.0

NOISE QUALITY MONITORING REPORT (in dBA) Period: April'25 to September'25													
Sl.No	NOISE MONITORING LOCATIONS	Apr '25				May'25				Jun '25			
		Leq dB(A) Day Max	Leq dB (A) Day Min	Leq dB (A) Night max	Leq dB (A) Night min	Leq dB(A) Day Max	Leq dB (A) Day Min	Leq dB (A) Night max	Leq dB (A) Night min	Leq dB(A) Day Max	Leq dB (A) Day Min	Leq dB (A) Night max	Leq dB (A) Night min
1	Near Patikhali Gate	57.2	51.1	52.3	49.2	59.0	52.0	54.1	50.2	61.1	53.3	53.4	48.2
2	Near Simplex Gate	56.4	52.2	52.1	48.0	60.4	51.2	55.0	51.1	61.2	51.1	53.0	48.3
3	Occupational Health Centre	54.4	48.0	49.5	47.9	56.8	47.9	51.9	47.1	58.1	49.6	51.8	46.5
4	Admin Building	53.9	49.3	50.4	45.3	54.6	47.9	49.3	46.1	53.9	48.1	48.3	45.8

5	CCR	57.3	52.3	52.9	49.5	59.7	53.8	56.9	53.0	60.2	53.7	54.0	52.0
6	Engeneering Service Center	52.9	46.4	49.3	46.2	58.3	49.0	52.7	48.7	57.1	51.1	53.9	48.2
7	Stamping Station - 04	61.3	56.6	58.9	55.2	64.0	55.4	62.0	55.0	62.7	54.4	58.1	52.6
8	Screen House	58.0	53.6	53.9	50.9	58.2	51.9	54.4	49.5	62.2	53.0	58.1	50.6
9	Junction house - 07	59.0	54.2	54.2	51.6	59.0	52.2	55.2	50.0	57.1	50.1	53.2	48.9
10	Stamping Station - 2	63.7	54.4	59.8	53.3	62.9	52.2	54.5	51.3	59.7	52.2	54.3	52.0
11	Stamping Station - 3	63.3	55.8	56.9	53.6	61.7	52.6	55.0	52.1	62.1	53.1	61.1	53.0
12	Blending Bunker	58.2	52.5	54.1	48.6	60.2	50.0	53.6	49.8	58.1	49.6	53.0	49.4
13	Crusher House	62.9	57.0	59.4	55.8	65.2	56.0	58.1	53.7	64.2	55.0	58.3	50.9
14	Wagon Tippler	60.2	50.0	54.5	49.8	63.3	49.1	56.4	48.1	61.9	53.3	53.1	49.4
15	Stamping Station -1	61.2	55.8	56.6	53.4	60.4	52.1	55.3	51.8	62.5	53.0	55.1	51.8

Sl.No	NOISE MONITORING LOCATIONS	July '25				Aug'25				Sep '25			
		Leq dB(A) Day Max	Leq dB (A) Day Min	Leq dB (A) Night max	Leq dB (A) Night min	Leq dB(A) Day Max	Leq dB (A) Day Min	Leq dB (A) Night max	Leq dB (A) Night min	Leq dB(A) Day Max	Leq dB (A) Day Min	Leq dB (A) Night max	Leq dB (A) Night min
1	Near Patikhali Gate	59.2	49.0	50.3	48.0	58.4	47.8	50.6	48.9	58.6	48.3	51.1	45.9
2	Near Simplex Gate	55.0	47.9	50.0	48.4	54.9	47.7	50.3	48.3	55.9	47.4	52.7	45.8
3	Occupational Health Centre	53.3	47.0	49.2	46.2	53.3	47.3	50.5	49.0	53.3	46.9	51.3	43.4
4	Admin Building	53.9	46.0	51.0	45.2	53.2	46.0	47.9	45.0	53.6	45.7	48.6	45.5
5	CCR	55.6	48.0	50.2	45.7	55.4	47.9	50.1	45.5	55.7	48.1	49.7	45.4
6	Engeneering Service Center	53.3	45.2	50.5	45.1	53.3	44.8	50.7	45	53.5	44.9	49.8	43.9
7	Stamping Station - 04	66.3	51.2	58.2	49.9	64.0	51.1	59.6	54.0	63.5	53.0	59.7	51.8
8	Screen House	60.4	49.2	56.5	48.1	60.4	49.8	56	50.8	60.2	51.3	56.5	50.1
9	Junction house - 07	62.8	50.0	56.8	48.1	62.6	49.5	57.8	48.8	63.2	49.3	56.1	47.8
10	Stamping Station - 2	61.4	54.0	56.4	52.2	63	53.7	56.6	52.1	64.3	53.4	57.4	51.2
11	Stamping Station - 3	59.1	53.0	57.7	52.8	60.5	51.5	57.1	52.4	60.1	50.0	49.3	46.0

12	Blending Bunker	53.2	45.8	48.1	45.6	54.7	46	47.2	44.6	56.2	45.2	50.1	52.4
13	Crusher House	64.7	55.0	58.1	50.9	63	57.1	60.2	54.5	62.9	57.1	60.3	54.3
14	Wagon Tippler	62.5	50.0	56.0	48.1	59.1	49.5	56.8	49.5	59.0	49.0	58.1	48.7
15	Stamping Station -1	62.6	51.2	56.0	50.7	61.7	54.8	57.1	53.1	61.9	55.4	56.5	52.9

Annexure - 2

Compliance status of applicable CREP points

Sl. No.	CREP point	Compliance Status
1	To meet the parameters PLD (% leaking colors), PLL (% leaking lids), PLO (% leaking off take), of the notified standards under EPA within three years by December 2005). Industry will submit time bound action plan and PER Chart along with the Bank Guarantee for the implementation or the time. -To rebuild at least 40% of the coke oven batteries in next 10 years (by December 2012.).	PLD,PLL & PLO parameters are applicable for byproduct recovery type Coke Ovens. Hooghly Met Coke Division is of 'Non-Recovery Type'.
4	Inventorisation of the Hazardous waste as per Hazardous Waste (M&H), Rules, 1989 as amended in 2000 and implementation of the Rules by December 2003 (Tar sludge, acid sludge, waste Lubricating oil and type fuel falls in the category of Hazardous waste).	Inventorization of all Hazardous waste generated within the plant was done as per Hazardous Waste (Management and Handling) Rules, 2016 (and as amended). The waste are collected stored and disposed to authorized recyclers as mandated in the rules. Returns are submitted regularly.
5	To operate the Co-BP effluent treatment plant efficiently to achieve the notified effluent discharge standards. – by June 2003.	Coke Oven Plant is of Non-recovery type and there is no Co-BP effluent discharge from Coke Oven Plant.
6	Installation of Continuous stack monitoring system & its calibration in major stacks and setting up of the online ambient air quality monitoring stations by June 2005	Continuous Stack Monitoring System with calibration facility & Continuous Ambient Air Quality Monitoring Stations have been installed.
7	To operate the existing pollution control equipment efficiently and to keep proper record of run hours, failure time and efficiency with immediate effect. Compliance report in this regard be submitted to CPCB/SPCB every three months.	All pollution control equipment is efficiently maintained.

9	<p>The industry will initiate the steps to adopt the following clean technologies measures to improve the performance of industry towards production, energy and land environment.</p> <ul style="list-style-type: none"> - To implement rainwater harvesting. - Reduction Green House Gases by: <ul style="list-style-type: none"> * Reduction in power consumption * Use of by –products gases for power generation * Promotion of Energy Optimisation technology including energy/ audit - To set targets for Resource Conservation such as Raw material, energy and water consumption to match International Standards. - Up- gradation in the monitoring and analysis facilities for air and water pollution. Also, to impart elaborate training to the manpower so that realistic data is obtained in the environmental monitoring laboratories. - To Improve overall house keeping 	<ul style="list-style-type: none"> • A storm water pond of capacity ~ 6500 cum has been developed. During rain, the roof water from all building like ADM building / Store / Laboratory / pump house are collected in a common storm water drain and this water is collected in the storm water pond. The collected water is utilized in coke quenching and other purposes like gardening, water sprinkling on roads, etc • CO2 emission under GHG is regularly monitored and operational controls are undertaken for controlling it. • Short- and long-term goals are fixed for several environment KPIs such as Water, energy, raw materials etc. The performance against the targets is regularly monitored and incremental improvements are achieved. • On-line Continuous stack monitoring equipment have been installed at all the eight (08) Nos. of stacks. Manual stack monitoring is also conducted on regular basis through registered third party. Ambient Air Quality Monitoring Stations have been set- up at Four corners (North / South / East / West) adjacent to the boundary wall and central of the plant and regular monitoring is conducted though certified 3rd party. • To maintain proper housekeeping inside plant, a dedicated team has been appointed for removal of scarps and maintaining proper housekeeping within the plant. “Colour Coded Bins have been provided at various location for waste segregation at source. Hazardous wastes are stored under covered shed above concrete flooring. Regular 5S audit is being conducted to improve the housekeeping in the plant.
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ULR: TC-867325000001144F

TEST REPORT**Name & Address of the Customer:**

Tata Steel Limited
HMC Complex, Patkhali, Haldia,
Purba Medinipur-721606

Report No. : C/2025/1144
Date : 16.04.25
Sample No. : MSK/MUM/2025/1106
Date of receipt of sample : 11.04.25
Date(s) of performance Ref. : 11.04.25-16.04.25
Ref. No. & Date : 4799870684/N10, Dt. - 06/08/2023
Discipline : Chemical

We hereby certify that the following sample drawn by us from the customer has been analyzed with the following results:

1.	Group	: Water
2.	Description of sample (As declared by customer)	: Surface Water
3.	Sample Mark (if any, given by the customer)	: Surface Water
4.	Date of sampling	: 08.04.25
5.	Place of sampling	: Strom Water Pond
6.	Environmental conditions during sampling	: (2 - 5) deg C Cold chain maintained.
7.	Sampling Drawn By	: Mr. Aravinda Kar
8.	Sampling Plan & Procedures used	: IS 17614 (P - 23): 2021
9.	Location of performance of Laboratory activities	: Laboratory Permanent Facility
10.	Additions to, Deviation from the method (if any)	: No

ANALYSIS RESULT

SL. NO.	Parameter	UOM	Method	Result
1.	Colour	Hazen	IS 3025 (Part 4)	BDL(DL:2.0)
2.	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44)	BDL(DL:2.0)
3.	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58)	BDL(DL:4.0)
4.	Total Dissolved Solids	mg/l	IS 3025 (Part 16)	12206
5.	Chloride as Cl	mg/l	IS 3025 (Part 32)	2113.52
6.	Fluoride as F	mg/l	IS 3025 (Part 60)	1.82
7.	Hexavalent Chromium (as Cr+6)	mg/l	IS 3025 (Part 52)	BDL(DL:0.03)
8.	Iron (as Fe)	mg/l	IS 3025 (Part 53)	BDL(DL:0.05)
9.	Oil & Grease	mg/l	IS 3025 (Part 39)	BDL(DL:3.0)
10.	pH	None	IS 3025 (Part 11)	8.73 at 25°C
11.	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part 17)	10.0
12.	Conductivity	µs/cm	IS 3025 (Part 14)	18800
13.	Nitrate as NO3	mg/l	IS 3025 (Part 34)	BDL(DL:0.2)
14.	Nitrite (as NO2)	mg/l	IS 3025 (Part 34)	BDL(DL:0.03)
15.	Odour	None	IS 3025 (Part 5)	Agreeable

End

Reviewed By:

Signature :
Name : Mr. Mohammed Aamir
Designation : Jr. Executive Chemist

Authorized Signatory

For Mitra S.K. Private Limited

Signature :
Name : Ms. Rekha Patel
Designation : Quality Manager

- The results relate only to the item(s) tested.
- This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.
- The reserved part of sample(s) shall be retained for 10 days & 30 days (Air) from the date of issue of the Test Report.

Page 1 of 1

Mitra S. K. Private Limited

Mumbai Laboratory, Building No. D-5, Unit-230,
Bhumi World Associate, Bhiwandi, Thane,
Maharashtra, India.
Tel. : 0252 2672352
Email: mumbai@mitrask.com
Web : www.mitrask.com

Doc No MSK/JETN/1419



ULR: TC-867325000001457F

TEST REPORT

Name & Address of the Customer:

Tata Steel Limited
HMC Complex, Patkhali, Haldia,
Purba Medinipur-721606.

Report No. : C/2025/1457
Date : 20.05.25
Sample No. : MSK/MUM/2025/1419
Date of receipt of sample : 15.05.25
Date(s) of performance Ref. : 15.05.25-20.05.25
Ref. No. & Date : 4799870684/N10, Dx. - 06/08/2023
Discipline : Chemical

We hereby certify that the following sample drawn by us from the customer has been analyzed with the following results:

1	Group	: Water
2	Description of sample (As declared by customer)	: Surface Water
3	Sample Mark (if any, given by the customer)	: Surface Water
4	Date of sampling	: 12.05.25
5	Place of sampling	: Stream Water Pond
6	Environmental conditions during sampling	: (2 ± 5) deg C Cold chain maintained.
7	Sampling Drawn By	: Mr. Arashida Kar
8	Sampling Plan & Procedures used	: IS 17614 (P - 23): 2021
9	Location of performance of Laboratory activities	: Laboratory Permanent Facility
10	Additions to, Deviation from the method (if any)	: No

ANALYSIS RESULT

SL NO.	Parameter	UOM	Method	Result
1	Colour	Hazen	IS 3025 (Part 4)	BDL (DL:2.0)
2	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44)	8.2
3	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58)	44
4	Total Dissolved Solids	mg/l	IS 3025 (Part 16)	2364
5	Chloride as Cl	mg/l	IS 3025 (Part 32)	1542
6	Fluoride as F	mg/l	IS 3025 (Part 60)	0.58
7	Hexavalent Chromium (as Cr+6)	mg/l	IS 3025 (Part 52)	BDL (DL:0.03)
8	Iron (as Fe)	mg/l	IS 3025 (Part 53)	BDL (DL:0.05)
9	Oil & Grease	mg/l	IS 3025 (Part 39)	BDL (DL:3.0)
10	pH	None	IS 3025 (Part 11)	8.10 at 25°C
11	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part 17)	9.6
12	Conductivity	µs/cm	IS 3025 (Part 14)	3660
13	Nitrate as NO3	mg/l	IS 3025 (Part 34)	3.84
14	Nitrite (as NO2)	mg/l	IS 3025 (Part 34)	BDL (DL:0.03)
15	Odour	None	IS 3025 (Part 5)	Agreeable

End

Reviewed By:

Signature :
Name : Mr. Mohammed Aamir
Designation : Jr. Executive Chemist

Authorized Signatory For Mitra S.K. Private Limited

Signature :
Name : Ms. E. Elizabeth Princy
Designation : Technical Manager

- The results relate only to the item(s) tested.
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Mitra S. K. Private Limited

Mumbai Laboratory, Building No. D-5, Unit-230,
Bhumi World Associate, Bhiwandi, Thane,
Maharashtra, India.
Tel. : 0252 2672352
Email: mumbai@mitrask.com
Web : www.mitrask.com

Doc No: MSK/GEN/1483



ULR: TC-86732500001873F

TEST REPORT

Name & Address of the Customer:
Tata Steel Limited
HMC Complex, Patkhali, Haldia,
Purba Medinipur-721606.

Report No. : C/2025/1873
Date : 13.06.25
Sample No. : MSK/MUM/2025/1839
Date of receipt of sample : 07.06.25
Date(s) of performance Ref. : 07.06.25-13.06.25
Ref. No. & Date : 4799870684/N10, Dt. - 06/08/2023
Discipline : Chemical

We hereby certify that the following sample drawn by us from the customer has been analyzed with the following results:

1	Group	: Water
2	Description of sample (As declared by customer)	: Surface Water
3	Sample Mark (if any, given by the customer)	: Surface Water
4	Date of sampling	: 04.06.25
5	Place of sampling	: Stream Water Pond
6	Environmental conditions during sampling	: (2 - 5) deg C Cold chain maintained.
7	Sampling Drawn By	: Mr. Aravinda Kar
8	Sampling Plan & Procedures used	: IS 17614 (P - 23): 2021
9	Location of performance of Laboratory activities	: Laboratory Permanent Facility
10	Additions to, Deviation from the method (if any)	: No

ANALYSIS RESULT

SL NO.	Parameter	UOM	Method	Result
1	Colour	Hazen	IS 3025 (Part 4)	BDL (DL: 2.0)
2	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44)	8.6
3	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58)	42
4	Total Dissolved Solids	mg/l	IS 3025 (Part 16)	2380
5	Chloride as Cl	mg/l	IS 3025 (Part 32)	1599
6	Fluoride as F	mg/l	IS 3025 (Part 60)	0.65
7	Hexavalent Chromium (as Cr+6)	mg/l	IS 3025 (Part 52)	BDL (DL: 0.03)
8	Iron (as Fe)	mg/l	IS 3025 (Part 53)	BDL (DL: 0.05)
9	Oil & Grease	mg/l	IS 3025 (Part 39)	BDL (DL: 3.0)
10	pH	None	IS 3025 (Part 11)	8.14 at 25°C
11	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part 17)	10.8
12	Conductivity	µs/cm	IS 3025 (Part 14)	3680
13	Nitrate as NO3	mg/l	IS 3025 (Part 34)	4.20
14	Nitrite (as NO2)	mg/l	IS 3025 (Part 34)	BDL (DL: 0.03)
15	Odour	None	IS 3025 (Part 5)	Agreeable

End

Reviewed By:

Signature :
Name : Mr. Mohammed Amir
Designation : Jr. Executive Chemist

Authorized Signatory
For Mitra S.K. Private Limited

Signature :
Name : Ms. E. Elizabeth Princy
Designation : Technical Manager

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Bhumi World Associate, Bhiwandi, Thane,
Maharashtra, India
Tel : 0252 2672352
Email: mumbai@mitrask.com
Web : www.mitrask.com

Doc No MSK/GEM/1911



ULR: TC-867325000002147F

TEST REPORT

Name & Address of the Customer:

Tata Steel Limited
JMC Complex, Putikhal, Haldia,
Purba Medinipur-721606.

Report No. : C/2025/2147
Date : 10.07.25
Sample No. : MSK/MUM/2025/2113
Date of receipt of sample : 04.07.25
Date(s) of performance : 04.07.25-10.07.25
Ref. No. & Date : 4750116478/002 dt.30.08.23
Discipline : Chemical

We hereby certify that the following sample drawn by us from the customer has been analyzed with the following results:

1	Group	: Water
2	Description of sample (As declared by customer)	: Surface Water
3	Sample Mark (if any, given by the customer)	: Surface Water
4	Date of sampling	: 01.07.25
5	Place of sampling	: Stream Water Pond
6	Environmental conditions during sampling	: (2 - 5) deg C Cold chain maintained.
7	Sampling Drawn By	: Mr. Arshinda Kar
8	Sampling Plan & Procedures used	: IS 17614 (P - 23): 2021
9	Location of performance of Laboratory activities	: Laboratory Permanent Facility
10	Additions to, Deviation from the method (if any)	: No

ANALYSIS RESULT

Sl. NO.	Parameter	UOM	Method	Result
1	Colour	Hazen	IS 3025 (Part 4)	BDL(DL: 2.0)
2	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44)	4.5
3	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58)	20
4	Total Dissolved Solids	mg/l	IS 3025 (Part 16)	820
5	Chloride as Cl	mg/l	IS 3025 (Part 32)	450
6	Fluoride as F	mg/l	IS 3025 (Part 60)	0.34
7	Hexavalent Chromium (as Cr+6)	mg/l	IS 3025 (Part 52)	0.08
8	Iron (as Fe)	mg/l	IS 3025 (Part 53)	BDL(DL: 0.05)
9	Oil & Grease	mg/l	IS 3025 (Part 39)	BDL(DL: 3.0)
10	pH	None	IS 3025 (Part 11)	7.60 at 25°C
11	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part 17)	6.0
12	Conductivity	µs/cm	IS 3025 (Part 14)	1560
13	Nitrate as NO3	mg/l	IS 3025 (Part 34)	2.01
14	Nitrite (as NO2)	mg/l	IS 3025 (Part 34)	BDL(DL: 0.03)
15	Odour	None	IS 3025 (Part 5)	Agreeable

End

Reviewed By:

Signature :
Name : Mr. Mohammed Aamir
Designation : Jr. Executive Chemist

Authorized Signatory For Mitra S.K. Private Limited

Signature :
Name : Ms. E. Elizabeth Princy
Designation : Technical Manager

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ULR: TC-867325000002554F

TEST REPORT

Name & Address of the Customer:
Tata Steel Limited
HMC Complex, Patkhali, Haldia,
Purba Medinipur-721606.

Report No. : C/2025/2554
Date : 18.08.25
Sample No. : MSK/MUM/2025/2520
Date of receipt of sample : 11.08.25
Date(s) of performance : 11.08.25-18.08.25
Ref. No. & Date : 4700116478/002 & 30.08.23
Discipline : Chemical

We hereby certify that the following sample drawn by us from the customer has been analyzed with the following results:

1	Group	Water
2	Description of sample (As declared by customer)	Surface Water
3	Sample Mark (if any, given by the customer)	Surface Water
4	Date of sampling	07.08.25
5	Place of sampling	Strom Water Pond
6	Environmental conditions during sampling	(2 - 5) deg C Cold chain maintained.
7	Sampling Done By	Mr. Arabinda Kar
8	Sampling Plan & Procedures used	IS 17614 (P - 23): 2021
9	Location of performance of Laboratory activities	Laboratory Permanent Facility
10	Additions to, Deviation from the method (if any)	No

ANALYSIS RESULT

SL. NO.	Parameter	UOM	Method	Result
1	Colour	Hazen	IS 3025 (Part 4)	BDL (DL: 2.0)
2	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44)	14.8
3	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58)	64
4	Total Dissolved Solids	mg/l	IS 3025 (Part 16)	502
5	Chloride as Cl	mg/l	IS 3025 (Part 32)	150
6	Fluoride as F	mg/l	IS 3025 (Part 60)	0.68
7	Hexavalent Chromium (as Cr+6)	mg/l	IS 3025 (Part 52)	BDL (DL: 0.03)
8	Iron (as Fe)	mg/l	IS 3025 (Part 53)	BDL (DL: 0.05)
9	Oil & Grease	mg/l	IS 3025 (Part 39)	BDL (DL: 3.0)
10	pH	None	IS 3025 (Part 11)	7.50 at 25°C
11	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part 17)	46
12	Conductivity	µs/cm	IS 3025 (Part 14)	940
13	Nitrate as NO3	mg/l	IS 3025 (Part 34)	4.02
14	Nitrite (as NO2)	mg/l	IS 3025 (Part 34)	BDL (DL: 0.03)
15	Odour	None	IS 3025 (Part 5)	Agreeable

End

Reviewed By:

Signature :
Name : Mr. Mohammed Aamir
Designation : Jr. Executive Chemist

Authorized Signatory
For Mitra S.K. Private Limited

Signature :
Name : Ms. E. Elizabeth Princy
Designation : Technical Manager

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Mumbai Laboratory, Building No. D-5, Unit-230,
Bhumi World Associate, Bhiwandi, Thane,
Maharashtra, India.
Tel : 0252 2672352.
Email: mumbai@mitrask.com
Web: www.mitrask.com

Doc No: MSK/GETD/1988



ULR: TC-867325000002823F

TEST REPORT

Name & Address of the Customer:
Tata Steel Limited
HMC Complex, Patikhali, Haldia,
Purba Medinipur-721606.

Report No. : C/2025/2823
Date : 13.09.25
Sample No. : MSK/MUM/2025/2789
Date of receipt of sample : 08.09.25
Date(s) of performance : 08.09.25-13.09.25
Ref. No. & Date : 4700116478/002 dt.30.08.23
Discipline : Chemical

We hereby certify that the following sample drawn by us from the customer has been analyzed with the following results:

1	Group	: Water
2	Description of sample (As declared by customer)	: Surface Water
3	Sample Mark (if any, given by the customer)	: Surface Water-2
4	Date of sampling	: 05.09.25
5	Place of sampling	: Storm Water Pond
6	Environmental conditions during sampling	: (2 - 5) deg C Cold chain maintained.
7	Sampling Drawn By	: Mr. Aravinda Kar
8	Sampling Plan & Procedures used	: IS 17614 (P - 23): 2021
9	Location of performance of Laboratory activities	: Laboratory Permanent Facility
10	Additions to, Deviation from the method (if any)	: No

ANALYSIS RESULT

SL. NO.	Parameter	UOM	Method	Result
1	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44)	BDL(DL:2.0)
2	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58)	BDL(DL:4.0)
3	Oil & Grease	mg/l	IS 3025 (Part 39)	BDL(DL:3.0)
4	pH	None	IS 3025 (Part 11)	7.67 at 25° C
5	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part 16)	455
6	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part 17)	20

End

Reviewed By:

Signature :
Name : Mr. Mohammed Aamir
Designation : Jr. Executive Chemist

Authorized Signatory
For Mitra S.K. Private Limited

Signature :
Name : Ms. E. Elizabeth Princy
Designation : Technical Manager

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Head Office: Shraichi Centre (5th floor), 74B, A.J.C. Bose Road, Kolkata - 700 016, West Bengal, India.
Tel : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22680008
mail : info@mitrask.com Website: www.mitrask.com



Mitra S. K. Private Limited

Mumbai Laboratory, Building No. D-5, Unit-230,
Bhumi World Associate, Bhiwandi, Thane,
Maharashtra, India.
Tel. : 0252 2672352.
Email: mumbailab@mitrask.com
Web : www.mitrask.com



ULR: TC-867325000001112F

TEST REPORT

Name & Address of the Customer:

Tata Steel Limited
HMC Complex, Patikhali, Haldia,
Purba Medinipur-721606.

Report No. : C/2025/1112
Date : 12.04.25
Sample No. : MSK/MUM/2025/1074
Date of receipt of sample : 07.04.25
Date(s) of performance : 07.04.25-12.04.25
Ref. No. & Date : 4700116478/002 dt.30.08.23
Discipline : Chemical

We hereby certify that the following sample drawn by us from the customer has been analyzed with the following results:

1	Group	: Water
2	Description of sample (As declared by customer)	: Drinking Water
3	Sample Mark (if any, given by the customer)	: Drinking Water-4
4	Date of sampling	: 03.04.25
5	Place of sampling	: Admin Building
6	Environmental conditions during sampling	: (2 - 5) deg C Cold chain maintained
7	Sampling Drawn By	: Mr. Arabinda Kar
8	Sampling Plan & Procedures used	: IS 17614 (P - 5): 2022
9	Location of performance of Laboratory activities	: Laboratory Permanent Facility
10	Additions to, Deviation from the method (if any)	: No

ANALYSIS RESULT

SL NO	Parameter	UOM	Method	Acceptable Limit as per IS:10500:2012	Permissible Limit as per IS:10500:2012	Result
1	pH	None	IS 3025 (Part 11)	6.5-8.5	No relaxation	7.82 at 25.2 ^o C
2	Colour	Hazen	IS 3025 (Part 4)	5	15	BDL(DL:2.0)
3	Odour	None	IS 3025 (Part 5)	Agreeable	Agreeable	Agreeable
4	Turbidity	N.T.U.	IS 3025 (Part 10)	1	5	BDL(DL:1.0)
5	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part 16)	500	2000	210
6	Ammonia (as total ammonia-N)	mg/l	IS 3025 (Part 34)	0.5	No Relaxation	BDL(DL:0.1)
7	Calcium as Ca	mg/l	IS 3025 (Part 40)	75	200	17.23
8	Chloramines as Cl ₂	mg/l	IS 3025 (Part 26)	4.0	No Relaxation	BDL(DL:0.1)
9	Chloride as Cl	mg/l	IS 3025 (Part 32)	250	1000	44.09
10	Alkalinity as CaCO ₃	mg/l	IS 3025 (Part 23)	200	600	100
11	Fluoride as F	mg/l	IS 3025 (Part 60)	1.0	1.5	0.24
12	Iron as Fe	mg/l	IS 3025 (Part 53)	1.0	No relaxation	BDL(DL:0.05)
13	Magnesium as Mg	mg/l	IS 3025 (Part 46)	30	100	5.41
14	Nitrate as NO ₃	mg/l	IS 3025 (Part 34)	45	No relaxation	0.77
15	Sulphate as SO ₄	mg/l	IS 3025 (Part 24/ Sec-1)	200	400	10.4
16	Total Hardness as CaCO ₃	mg/l	IS 3025 (Part 21)	200	600	66

-----END-----

Reviewed By:

Signature :
Name : Mr. Mohammed Aamir
Designation : Jr. Executive Chemist

Authorized Signatory For Mitra S.K. Private Limited

Signature :
Name : Mr. Rekha Patel
Designation : Quality Manager

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Maharashtra, India.
Tel. : 0252 2672352
Email: mumbai@mitrask.com
Web : www.mitrask.com

TEST REPORT

Name & Address of the Customer:

Tata Steel Limited
HMC Complex, Patikhali, Haldia,
Purba Medinipur-721606.

Report No. : C/2025/1112A
Date : 12.04.25
Sample No. : MSK/MUM/2025/1074
Date of receipt of sample : 07.04.25
Date(s) of performance : 07.04.25-12.04.25
Ref. No. & Date : 4700116478/002 dt.30.08.23
Discipline : Chemical & Biological

We hereby certify that the following sample drawn by us from the customer has been analyzed with the following results:

1	Group	: Water
2	Description of sample (As declared by customer)	: Drinking Water
3	Sample Mark (if any, given by the customer)	: Drinking Water-4
4	Date of sampling	: 03.04.25
5	Place of sampling	: Admin Building
6	Environmental conditions during sampling	: (2 - 5) deg C Cold chain maintained
7	Sampling Drawn By	: Mr. Ambinda Kar
8	Sampling Plan & Procedures used	: IS 17614 (P - 5): 2022, IS 17614 (P - 25): 2022
9	Location of performance of Laboratory activities	: Laboratory Permanent Facility
10	Additions to, Deviation from the method (if any)	: No

ANALYSIS RESULT

S. NO	Parameter	UOM	Method	Acceptable Limit as per IS:10500:2012	Permissible Limit as per IS:10500:2012	Result
1	Aluminium (as Al)	mg/l	APHA (24th Edition) 3120 B	0.03	0.2	BDL(DL:0.05)
2	Anionic Surface Active Agents as (MBAS)	mg/l	APHA (24th Edition), 5540 C	0.2	1.0	BDL(DL:0.1)
3	Barium (as Ba)	mg/l	APHA (24th Edition) 3120 B	0.7	No Relaxation	BDL(DL:0.05)
4	Boron (as B)	mg/l	APHA (24th Edition) 3120 B	0.5	2.4	BDL(DL:0.5)
5	Copper (as Cu)	mg/l	APHA (24th Edition) 3120 B	0.05	1.5	BDL(DL:0.05)
6	Free Residual Chlorine	mg/l	IS 3025 (Part 26) 2021	0.2	1.0	BDL(DL:0.1)
7	Manganese (as Mn)	mg/l	APHA (24th Edition) 3120 B	0.1	0.3	BDL(DL:0.05)
8	Mineral Oil	mg/l	IS 3025 (Part 39) 1991	1.0	No Relaxation	BDL(DL:1.0)
9	Phenolic Compounds (as C6H5OH)	mg/l	APHA (24th Edition), 5530C (Chloroform Extraction)	0.001	0.002	BDL(DL:0.001)
10	Selenium (as Se)	mg/l	APHA (24th Edition) 3114 C	0.01	No Relaxation	BDL(DL:0.005)
11	Silver (as Ag)	mg/l	APHA (24th Edition) 3120 B	0.1	No Relaxation	BDL(DL:0.05)
12	Sulphide (as H ₂ S)	mg/l	APHA (24th Edition), 4500 S ₂ -D	0.05	No Relaxation	BDL(DL:0.05)
13	Zinc (as Zn)	mg/l	APHA (24th Edition) 3120 B	5	15	BDL(DL:0.05)
14	Cadmium (as Cd)	mg/l	APHA (24th Edition) 3120 B	0.003	No Relaxation	BDL(DL:0.05)
15	Cyanide (as CN)	mg/l	APHA 24th Edition 2023 4500 CN-F	0.05	No Relaxation	BDL(DL:0.05)
16	Lead (as Pb)	mg/l	APHA (24th Edition) 3120 B	0.01	No Relaxation	BDL(DL:0.05)
17	Mercury (as Hg)	mg/l	TPM/MSK/INST/170	0.001	No Relaxation	BDL(DL:0.001)
18	Molybdenum (as Mo)	mg/l	APHA (24th Edition) 3120 B	0.07	No Relaxation	BDL(DL:0.05)
19	Nickel (as Ni)	mg/l	APHA (24th Edition) 3120 B : 2023	0.02	No Relaxation	BDL(DL:0.05)
20	Polychlorinated biphenyls (as PCB)	µg/l	TPM/MSK/INST.91	0.0005	No Relaxation	BDL(DL:0.01)
21	Total Arsenic (as As)	mg/l	APHA (24th Edition) 3114 C	0.01	No Relaxation	BDL(DL:0.005)

Reviewed By:

Signature
Name
Designation

Aamir
Mr. Mohammed Aamir
Jr. Executive Chemist

Authorized Signatory For Mitra S.K. Private Limited

Signature
Name
Designation

P. Patel
Ms. Rekha Patel
Quality Manager

Mitra S. K. Private Limited

Mumbai Laboratory, Building No. D-5, Unit-230,
 Bhumi World Associate, Bhiwandi, Thane,
 Maharashtra, India.
 Tel. : 0252 2672352
 Email: mumbailab@mitrask.com
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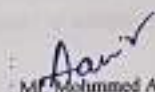
Report No. : C/2025/1112A
 Sample No. : MSK/MUM/2025/1074

ANALYSIS RESULT

Sl. NO	Parameter	UOM	Method	Acceptable Limit as per IS:10500:2012	Permissible Limit as per IS:10500:2012	Result
22	Total Chromium (as Cr)	mg/l	APHA (24th Edition)3120 B	0.05	No Relaxation	BDL(DL:0.05)
23	Bromoform	mg/l	TPM/MSK/INST-160	0.1	No Relaxation	BDL(DL:0.01)
24	Dibromochloro methane	mg/l	TPM/MSK/INST-160	0.1	No Relaxation	BDL(DL:0.01)
25	Bromodichloro methane	mg/l	TPM/MSK/INST-160	0.06	No Relaxation	BDL(DL:0.01)
26	Chloroform	mg/l	TPM/MSK/INST-160	0.2	No Relaxation	BDL(DL:0.01)
27	Polynuclear Aromatic Hydrocarbons (as PAH)	µg/l	TPM/MSK/INST./91	0.1	No Relaxation	BDL(DL:0.01)
28	Alachlor	µg/l	TPM/MSK/INST./91	20	No Relaxation	BDL(DL:0.01)
29	Atrazine	µg/l	TPM/MSK/INST./91	2	No Relaxation	BDL(DL:0.01)
30	Aldrin	µg/l	TPM/MSK/INST./91	0.03	No Relaxation	BDL(DL:0.01)
31	Dieldrin	µg/l	TPM/MSK/INST./91	0.03	No Relaxation	BDL(DL:0.01)
32	Alpha-HCH	µg/l	TPM/MSK/INST./91	0.01	No Relaxation	BDL(DL:0.01)
33	Beta-HCH	µg/l	TPM/MSK/INST./91	0.04	No Relaxation	BDL(DL:0.01)
34	Butachlor	µg/l	USEPA 8141A: 2007	125	No Relaxation	BDL(DL:0.01)
35	Chlorpyrifos	µg/l	TPM/MSK/INST./91	30	No Relaxation	BDL(DL:0.01)
36	Delta-HCH	µg/l	TPM/MSK/INST./91	0.04	No Relaxation	BDL(DL:0.01)
37	2,4-Dichlorophenoxyacetic acid	µg/l	TPM/MSK/INST./159	30	No Relaxation	BDL(DL:0.01)
38	o, p-DDD	µg/l	TPM/MSK/INST./91	1	No Relaxation	BDL(DL:0.01)
39	o, p-DDE	µg/l	TPM/MSK/INST./91	1	No Relaxation	BDL(DL:0.01)
40	o, p-DDT	µg/l	TPM/MSK/INST./91	1	No Relaxation	BDL(DL:0.01)
41	p, p-DDD	µg/l	TPM/MSK/INST./91	1	No Relaxation	BDL(DL:0.01)
42	p, p-DDE	µg/l	TPM/MSK/INST./91	1	No Relaxation	BDL(DL:0.01)
43	p, p-DDT	µg/l	TPM/MSK/INST./91	1	No Relaxation	BDL(DL:0.01)

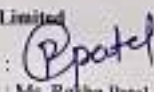
Reviewed By:

Signature
 Name
 Designation


 Mr. Mohammed Amir
 Jr. Executive Chemist

Authorized Signatory
 For Mitra S.K. Private Limited

Signature
 Name
 Designation


 Ms. Rekha Patel
 Quality Manager

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Mitra S. K. Private Limited

Mumbai Laboratory, Building No. D-5, Unit-230,
Bhumi World Associate, Bhiwandi, Thane,
Maharashtra, India.
Tel. : 0252 2672352
Email: mumbai@mitrask.com
Web : www.mitrask.com



Report No. : C/2025/1112A

Sample No. : MSK/MUM/2025/1074

ANALYSIS RESULT

SL NO	Parameter	UOM	Method	Acceptable Limit as per IS:10500:2012	Permissible Limit as per IS:10500:2012	Result
44	Alpha Endosulfan	µg/l	TPM/MSK/INST./91	0.4	No Relaxation	BDL(DL:0.01)
45	Beta Endosulfan	µg/l	TPM/MSK/INST./91	0.4	No Relaxation	BDL(DL:0.01)
46	Endosulfan sulfate	µg/l	TPM/MSK/INST./91	0.4	No Relaxation	BDL(DL:0.01)
47	Edion	µg/l	TPM/MSK/INST./91	3	No Relaxation	BDL(DL:0.01)
48	Gamma-HCH(Lindane)	µg/l	TPM/MSK/INST./91	2	No Relaxation	BDL(DL:0.01)
49	Isopturon	µg/l	TPM/MSK/INST./159	9	No Relaxation	BDL(DL:0.01)
50	Malathion	µg/l	TPM/MSK/INST./91	190	No Relaxation	BDL(DL:0.01)
51	Methyl parathion	µg/l	TPM/MSK/INST./91	0.3	No Relaxation	BDL(DL:0.05)
52	Monocrotophos	µg/l	TPM/MSK/INST./91	1	No Relaxation	BDL(DL:0.01)
53	Phorate	µg/l	TPM/MSK/INST./91	2	No Relaxation	BDL(DL:0.01)
Microbiology						
1	Total Coliform	/100 ml	IS 15185	Not Detectable	Not Applicable	Not Detected
2	E.coli	/100 ml	IS 15185	Not Detectable	Not Applicable	Not Detected

-----END-----

Reviewed By:

Signature
Name
Designation.

: Mr. Mohammed Amir
: Jr. Executive Chemist

Authorized Signatory
For Mitra S.K. Private Limited

Signature
Name
Designation

: Ms. Rekha Patel
: Quality Manager

- The results relate only to the item(s) tested.
- This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.
- The reserved part of sample(s) shall be retained for 10 days & 30 days (Air) from the date of issue of the Test Report.

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Mitra S. K. Private Limited

Mumbai Laboratory, Building No. D-5, Unit-230,
Bhumi World Associate, Bhiwandi, Thane,
Maharashtra, India.
Tel : 0252 2672382
Email: mumbai@mitrask.com
Web : www.mitrask.com

Doc No: MSK/GEN/1901



TEST REPORT

Name & Address of the Customer:

Tata Steel Limited
HMC Complex, Patikhali, Haldia,
Purba Medinipur-721606.

Report No. : C/2025/1389A
Date : 14.05.25
Sample No. : MSK/MUM/2025/1351
Date of receipt of sample : 09.05.25
Date(s) of performance : 09.05.25-14.05.25
Ref. No. & Date : 4700116478/002 dt.30.08.23
Discipline : Chemical & Biological

We hereby certify that the following sample drawn by us from the customer has been analyzed with the following results:

1	Group	: Water
2	Description of sample (As declared by customer)	: Drinking Water
3	Sample Mark (if any, given by the customer)	: Drinking Water-1
4	Date of sampling	: 06.05.25
5	Place of sampling	: Employee Canteen
6	Environmental conditions during sampling	: (2 - 5) deg C Cold chain maintained.
7	Sampling Drawn By	: Mr. Arubinda Kar
8	Sampling Plan & Procedures used	: IS 17914 (P - 5): 2022, IS 17614 (P - 25): 2022
9	Location of performance of Laboratory activities	: Laboratory Permanent Facility
10	Additions to, Deviation from the method (if any)	: No

ANALYSIS RESULT

SL NO	Parameter	UOM	Method	Acceptable Limit as per IS:10500:2012	Permissible Limit as per IS:10500:2012	Result
1	Aluminium (as Al)	mg/l	APHA (24th Edition) 3120 B	0.03	0.2	NDL (DL: 0.03)
2	Anionic Surface Active Agents as (MBAS)	mg/l	APHA (24th Edition), 5540 C	0.2	1.0	NDL (DL: 0.1)
3	Barium (as Ba)	mg/l	APHA (24th Edition) 3120 B	0.2	No Relaxation	NDL (DL: 0.05)
4	Boron (as B)	mg/l	APHA (24th Edition) 3120 B	0.5	2.4	NDL (DL: 0.5)
5	Copper (as Cu)	mg/l	APHA (24th Edition) 3120 B	0.05	1.5	NDL (DL: 0.05)
6	Free Residual Chlorine	mg/l	IS 3025 (Part 26) 2021	0.2	1.0	NDL (DL: 0.1)
7	Manganese (as Mn)	mg/l	APHA (24th Edition) 3120 B	0.1	0.3	NDL (DL: 0.05)
8	Mineral Oil	mg/l	IS 3025 (Part 29) 1991	1.0	No Relaxation	NDL (DL: 1.0)
9	Phenolic Compounds (as C6H5OH)	mg/l	APHA (24th Edition), 5530C (Chloroform Extraction)	0.001	0.002	NDL (DL: 0.001)
10	Selenium (as Se)	mg/l	APHA (24th Edition) 3114 C	0.01	No Relaxation	NDL (DL: 0.005)
11	Silver (as Ag)	mg/l	APHA (24th Edition) 3120 B	0.1	No Relaxation	NDL (DL: 0.05)
12	Sulphide (as H2S)	mg/l	APHA (24th Edition), 4500 S2- D	0.05	No Relaxation	NDL (DL: 0.05)
13	Zinc (as Zn)	mg/l	APHA (24th Edition) 3120 B	5	15	NDL (DL: 0.05)
14	Cadmium (as Cd)	mg/l	APHA (24th Edition) 3120 B	0.003	No Relaxation	NDL (DL: 0.05)
15	Cyanide (as CN)	mg/l	APHA 24th Edition, 2023 4520 CN- F	0.05	No Relaxation	NDL (DL: 0.05)
16	Lead (as Pb)	mg/l	APHA (24th Edition) 3120 B	0.01	No Relaxation	NDL (DL: 0.05)
17	Mercury (as Hg)	mg/l	TPM/MSK/INST/170	0.001	No Relaxation	NDL (DL: 0.001)
18	Molybdenum (as Mo)	mg/l	APHA (24th Edition) 3120 B	0.07	No Relaxation	NDL (DL: 0.05)
19	Nickel (as Ni)	mg/l	APHA (24th Edition) 3120 B : 2023	0.02	No Relaxation	NDL (DL: 0.05)
20	Polychlorinated biphenyls (as PCB)	µg/l	TPM/MSK/INST/91	0.0005	No Relaxation	NDL (DL: 0.01)
21	Total Arsenic (as As)	mg/l	APHA (24th Edition) 3114 C	0.01	No Relaxation	NDL (DL: 0.005)

Reviewed By:

Signature
Name
Designation

Mr. Mohammed Amir
Jr. Executive Chemist

Authorized Signatory For Mitra S.K. Private Limited

Signature
Name
Designation

Ms. T. Elizabeth George
Technical Manager