



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/2026/
19th May 2026

Sub: Six Monthly report from Oct '25 to Mar'26 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 Oct'25 to Mar'26 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 – Bhabanipur, 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

Hooghly Met Coke Division Patikhali P O Haldia OIL Refinery Purba Medinipur Haldia 721606
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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	1228339811
Compliance Number(For Tracking)	EC/M/COMPLIANCE/1228339811/2026
Reporting Year	2026
Reporting Period	01 Jun(01 Oct - 31 Mar)
Submission Date	20-05-2026
RO/SRO Name	Shri Senthil Kumar Sampath
RO/SRO Email	agmu156@ifs.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/WB/IND/30491/2014
Compliance ID	1228457218
Compliance Number(For Tracking)	EC/M/COMPLIANCE/1228457218/2026
Reporting Year	2026
Reporting Period	01 Jun(01 Oct - 31 Mar)
Submission Date	20-05-2026
RO/SRO Name	Shri Senthil Kumar Sampath
RO/SRO Email	agmu156@ifs.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

October 2025 to March 2026

**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 (October'25 -March'26) 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 Crusher house, Pusher car & coke transfer point.
(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 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 has not exceeded from prescribed quantity. 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 developed to collect wastewater for reuse inside plant.

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.	<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 and 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. 7 infrastructure projects has been executed during FY'26 in different school surrounding Haldia. 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.	An Environment Management cell has been Constituted at HMC vide Circular No. HMC/HAL/GM CIRCULAR/677 dated 27.04.2026 under direct oversight of GM HMC for carrying out environment management , monitoring & compliance function.
(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.

Compliance to conditions stipulated in the Environmental Clearance Oven 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:		
(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/2025/009 dated: 25.11.2025
(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 Crusher house, pushing Car at Row 2 & coke transfer point. 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

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	
		provided at Wagon Tippler to prevent fugitive dusts/ spillage.
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 Crusher, Pushing car & coke circuit 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. Further the plant has maintained and developed approx.32.4 % of Green cover with in the premises which contribute towards carbon sequestration.
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	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

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	
	more than 1 hr continuously, such employee would be invariably provided 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.	sufficient drinking water facilities are being provided inside the premises.
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. Analysis report of March 26 is Attached as Annexure - 3
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	Seven infrastructure projects has been executed during FY'26 in different schools surrounding Haldia. 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

S. N	Condition	Compliance status
B.	Specific conditions	
	proponent, representatives of village panchayat and District 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	<p>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.</p> <p>In FY 26 Seven infrastructure projects has been executed in different schools surrounding Haldia. Apart from this Employees are engaged in Black board painting of peripheral schools, awareness sessions to school students through volunteering wings for CSR. And in FY 27, we have planned for more infrastructure projects in schools through Tata Steel Foundation and it will be continued every year.</p>
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	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	
	environmental norms to the board of 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	Agreed. Provision will 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.

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,	Five Ambient air quality monitoring stations are installed & monitoring is being done regularly & submitted to WBPCB every month Data on ambient air quality

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

	PM2.5, SO2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its regional office at Orissa and the SPCB/CPCB once in six months.	and stack emission is regularly submitted 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 conform to the standards prescribed under GSR 422 (E) dated 19th may, 1993 and 31st December 1993 or as amended from time to time. The treated 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 lean season besides recharging the ground water table.	A Storm water pond of capacity 6,500 Cum (approx.) has been developed. Roof top water is being collected & stored in the Pond. 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.
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. Seven infrastructure projects has been executed during FY'26 in different schools surrounding Haldia. Apart from this Employees are engaged in Black board painting of peripheral schools, awareness sessions to school students through volunteering wings for CSR.
ix.	Requisite funds shall be earmarked towards capital cost and recurring	Adequate funds has been allocated and utilized judiciously for environment

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

	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.	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 Vide letter no – HMC/HC/ENV-MoEF/2025/009 on 25.11.2025.
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 Board as prescribed under the environment (Protection) Rules, 1986,	Environmental Statement is submitted on time. Environmental Statement for FY25 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

	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 October'25 to March'26						
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	25.13	800	298.45	500	155.93
Chimney 1CD	50	23.95	800	307.78	500	195.43
Chimney 2AB	50	22.43	800	286.43	500	149.73
Chimney 2CD	50	18.43	800	282.27	500	166.07
Chimney 3AB	50	22.17	800	302.12	500	175.60
Chimney 3CD	50	21.25	800	301.63	500	184.28
Chimney 4AB	50	23.03	800	316.72	500	189.10
Chimney 4CD	50	21.40	800	313.33	500	145.17

Online Stack Emission Monitoring Report for SPM (in mg/Nm³)							
For Period: October'25 to March'26							
Stack	Oct'25	Nov'25	Dec'25	Jan'26	Feb'26	Mar'26	Average
Chimney 1AB	25.90	26.29	24.33	23.48	24.96	25.61	25.09
Chimney 1CD	27.40	27.30	21.95	20.99	21.91	24.00	23.92
Chimney 2AB	24.06	33.09	27.39	31.39	34.16	32.92	30.50
Chimney 2CD	27.34	31.59	26.37	24.63	19.36	21.92	25.20
Chimney 3AB	17.42	18.49	18.16	18.44	19.90	19.55	18.66
Chimney 3CD	26.65	26.14	25.80	26.04	26.10	27.16	26.32
Chimney 4AB	25.61	25.33	25.79	19.29	28.20	35.50	26.62
Chimney 4CD	23.92	24.25	21.59	23.77	24.69	25.41	23.94

AMBIENT AIR QUALITY MONITORING REPORT

Period: Oct'25 to March'26

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) ng /m ³	Nickel (Ni) ng/m ³
1	Near CCR (Centre)	77.3	41.4	8.2	31.8	<0.01	<4.2	28.1	23.2	0.7	<0.5	<1.0	<5.0
2	Back Side of ADM Building (South side)	69.0	37.2	8.1	38.3	<0.04	<4.2	31.3	22.5	0.7	<0.5	<1.0	<5.0
3	Near Coal Yard (East Side)	132.9	64.8	11.0	40.5	<0.04	<4.2	33.2	26.1	1.0	<0.5	<1.0	<5.0
4	Patikhali Gate (North Side)	98.5	50.0	7.9	33.7	<0.01	<4.2	32.2	23.6	0.7	<0.5	<1.0	<5.0
5	Near Simplex Gate / ENS office (West Side)	87.5	48.2	8.4	35.5	<0.02	<4.2	33.7	23.5	0.7	<0.5	<1.0	<5.0

NOISE QUALITY MONITORING REPORT (in dBA)

Period: October '25 to March'26

Sl No	Monitoring Location	Oct'25		Nov'25		Dec'25		Jan'26		Feb'26		Mar'26	
		Leq dB(A) day	Leq dB(A) night	Leq dB(A) day	Leq dB(A) night	Leq dB(A) day	Leq dB(A) night	Leq dB(A) day	Leq dB(A) night	Leq dB(A) day	Leq dB(A) night	Leq dB(A) day	Leq dB(A) night
01	Near Patikhali Gate	52.0	49.6	52	49.8	54	52.5	54.5	50.3	54.7	50.5	54.6	50.4
02	Near Simplex Gate	54.5	49.7	54.3	50.1	43.5	52.5	54.4	50.7	54.4	50.8	54.4	50.6
03	Occupational Health Center	51.4	49.5	52.0	49.8	52.1	51.1	52.1	49.0	53.0	49.8	52.3	49.8

04	Admin Building	50.5	46.7	50.3	46.3	51.5	48.9	51.7	48.9	51.7	49.5	53.5	49.5
05	CCR	52.7	48.1	52.4	47.8	55.6	50.9	55.3	50.8	55.2	50.4	55.1	51.7
06	Engineering Service Center	50.6	48.2	50.6	47.8	51.6	48.1	51.4	48.4	52.4	49.4	55	45.6
07	Stamping Station-4	61.2	57.8	60.7	59.5	59.4	57.6	61.6	58.4	59.5	57.5	56.7	55.9
08	Screen House	56.7	53.5	57.3	56.6	56.2	52.5	62.7	61.2	55.9	52.7	56	55.3
09	Junction House-7	58.4	55.5	60.1	58.9	56.2	52.1	60.5	58.9	56.8	52.9	55.8	55.4
10	Stamping Station-2	59.1	53.6	59.1	53.8	60.4	56.5	62.1	60.3	60.1	57.1	56.8	54.7
11	Stamping Station-3	56	55.1	56.1	55.5	60	55.5	61.8	60.2	59.8	55.3	58.8	55.3
12	Blending Bunker	52.2	46.8	52.4	47.3	56.7	50.9	62.7	58.1	56	50.9	57.5	57.2
13	Crusher House	61.3	58.7	60.8	59.8	61.1	57.7	62.8	60.7	60.1	57.4	59.3	59.8
14	Wagon Tripler	55.7	51.5	55	54.9	56.7	52.9	61.8	58.6	56.7	52.9	55.5	54.9
15	Stamping Station -1	59.2	54.8	58.9	58.4	59.2	55.5	61.8	58.9	58.6	55.5	57.2	58.4

Annexure - 2

Compliance status of applicable CREP points


Sl. No.	CREP point	Compliance Status
1	<p>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.</p> <p>-To rebuild at least 40% of the coke oven batteries in next 10 years (by December 2012.).</p>	<p>PLD,PLL & PLO parameters are applicable for byproduct recovery type Coke Ovens. Hooghly Met Coke Division is of 'Non-Recovery Type'.</p>
4	<p>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).</p>	<p>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.</p>
5	<p>To operate the Co-BP effluent treatment plant efficiently to achieve the notified effluent discharge standards. – by June 2003.</p>	<p>Coke Oven Plant is of Non-recovery type and there is no Co-BP effluent discharge from Coke Oven Plant.</p>
6	<p>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</p>	<p>Continuous Stack Monitoring System with calibration facility & Continuous Ambient Air Quality Monitoring Stations have been installed.</p>
7	<p>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.</p>	<p>All pollution control equipment is efficiently maintained.</p>
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 	<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.

	<ul style="list-style-type: none"> - 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"> • 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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Annexure - 3

Mitra S. K. Private Limited Doc No.: MSKGEN1900 (Issue No.:02, Date: 15.09.2025)

Address of Laboratory:
Building No. P-48, Udayan Industrial Estate,
3, Pagladanga Road, Kolkata 700015
West Bengal
Tel.: +91 7044036120
Email: udayanlab@mitrask.com



TC-16686



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TEST REPORT

Name & Address of Customer:
Tata Steel Ltd_HMC Division
HFC Complex patkhali hadka purba Medinipur west bengal
India Pin 721606

Report No.: MSKPL/FD/2025-26/B45D0A
Date of issue of report: 27/03/2026
Sample No.: MSKNB/FD/2025-26/03/D5741V
Date of receipt of sample: 19/03/2026
Date(s) of performance of test: 19/03/2026 - 27/03/2026
Location of performance of test: Permanent and Site Facility
Reference No. & Date: 4700116478/002, Date - 30/08/2023
Discipline: Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Water & Residue in Water
2. Description, unambiguous identification of sample	Surface Water
3. Unique identification of sample(if any)	Surface Water
4. Date of sampling	18/03/2026
5. Place of sampling	(SW-6) Tatapower Discharge
6. Environmental conditions during sampling & Transport	(2 - 5)deg C Cold chain maintained
7. Sampling Plan & Method used	IS 17614 (Part - 23): 2021
8. Identification of the personnel performing sampling by	Mr. Himadri Kandar
9. Addition, deviation or exclusion from method (if any)	No

Report No. MSKPL/FD/2025-26/B45D0A **Lab Sample Id.:** MSK/KOL/2026/1040

RESULT

Sl No.	Parameter	UOM	Method	Result
1	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44) : 2023	4.7
2	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58) : 2023	19.8
3	Oil & Grease	mg/l	IS 3025 (Part 39):2021 1.1(a)	BDL(DL-4.0)
4	Phenolic Compounds as C6H5OH	mg/l	APHA (24th EDITION, 2023)5530C	BDL(DL-0.001)
5	Residual Free Chlorine	mg/l	IS 3025 (Part 26) - 2021 1. (a)	BDL(DL-0.1)
6	Total Suspended Solids	mg/l	IS 3025 (Part 17) : 2022	BDL(DL-2.5)
7	pH	None	IS 3025 (Part 11) : 2022	7.82 AT 32 DEG C

Option : NA
Statement of Conformity : NA

Remarks: All test parameters, BOD, + BOD Detection Limit, DL, + Detection Limit, Parameters Sl. No. 3 & 7 are analyzed at Site Facility.

Reviewed By: *Asim*
Signature: *Asim*
Name: Dr. Amartya Kumar Gupta
Designation: Lab In-charge

Authorized Signatory: *Asim*
Signature: *Asim*
Name: Dr. Amartya Kumar Gupta
Designation: Lab In-charge


Results valid only for the items tested and results apply to the sample as received (or submitted sample).
This Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.
The Portable samples are retained for 2 days and Non-portable samples - Food, Water, Soil, Gold & Liquid Waste are retained for 15 days, Air Samples (Thermbk, filter paper) are retained 30 days from the date of issue of the Test Report.

Head Office: Shrachi Centre (5th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India.
Tel.: 91 33 40143000 / 22655007 Fax: 91 33 22655008
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Mitra S. K. Private Limited Doc No.: MSKGEN1900 (Issue No.:02, Date: 15.09.2025)

Address of Laboratory:
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West Bengal
Tel.: +91 7044036120
Email: udayanlab@mitrask.com



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TEST REPORT

Name & Address of Customer:
Tata Steel Ltd_HMC Division
HFC Complex patkhali hadka purba Medinipur west bengal
India Pin 721606

Report No.: MSKPL/FD/2025-26/S25D0R
Date of issue of report: 27/03/2026
Sample No.: MSKNB/FD/2025-26/03/VW40K
Date of receipt of sample: 19/03/2026
Date(s) of performance of test: 19/03/2026 - 27/03/2026
Location of performance of test: Permanent and Site Facility
Reference No. & Date: 4700116478/002, Date - 30/08/2023
Discipline: Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Water & Residue in Water
2. Description, unambiguous identification of sample	Surface Water
3. Unique identification of sample(if any)	Surface Water
4. Date of sampling	18/03/2026
5. Place of sampling	(SW-5) DM Plant Discharge
6. Environmental conditions during sampling & Transport	(2 - 5)deg C Cold chain maintained
7. Sampling Plan & Method used	IS 17614 (Part - 23): 2021
8. Identification of the personnel performing sampling by	Mr. Himadri Kandar
9. Addition, deviation or exclusion from method (if any)	No

Report No. MSKPL/FD/2025-26/S25D0R **Lab Sample Id.:** MSK/KOL/2026/1039

RESULT

Sl No.	Parameter	UOM	Method	Result
1	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44) : 2023	BDL(DL-2.0)
2	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58) : 2023	9.9
3	Oil & Grease	mg/l	IS 3025 (Part 39):2021 1.1(a)	BDL(DL-4.0)
4	Phenolic Compounds as C6H5OH	mg/l	APHA (24th EDITION, 2023)5530C	BDL(DL-0.001)
5	Residual Free Chlorine	mg/l	IS 3025 (Part 26) - 2021 1. (a)	BDL(DL-0.1)
6	Total Dissolved Solids	mg/l	IS 3025 (Part 16) : 2023	1174
7	Total Suspended Solids	mg/l	IS 3025 (Part 17) : 2022	BDL(DL-2.5)
8	pH	None	IS 3025 (Part 11) : 2022	7.69 AT 20 DEG C

Option : NA
Statement of Conformity : NA

Remarks: All test parameters, BOD, + BOD Detection Limit, DL, + Detection Limit, Parameters Sl. No. 3 & 7 are analyzed at Site Facility.

Reviewed By: *Asim*
Signature: *Asim*
Name: Dr. Amartya Kumar Gupta
Designation: Lab In-charge

Authorized Signatory: *Asim*
Signature: *Asim*
Name: Dr. Amartya Kumar Gupta
Designation: Lab In-charge

Results valid only for the items tested and results apply to the sample as received (or submitted sample).
This Report shall not be reproduced except in full, without the permission of Mitra S. K. Private Limited.
The Portable samples are retained for 2 days and Non-portable samples - Food, Water, Soil, Gold & Liquid Waste are retained for 15 days, Air Samples (Thermbk, filter paper) are retained 30 days from the date of issue of the Test Report.

Head Office: Shrachi Centre (5th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India.
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Mitra S. K. Private Limited

Doc No.: MSKGEN1900 (Issue No.:02, Date: 15.09.2025)

Address of Laboratory :
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3, Pagladanga Road, Kolkata 700015
West Bengal
Tel. : +91 7044036120
Email: udayanlab@mitrask.com



TC-16686



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ULR: TC-166862600001057F

TEST REPORT

Name & Address of Customer :

Tata Steel Ltd_HMC Division

HFC Complex patikhali haldia purba Medinipur west bengal
India Pin 721606

Report No. : MSKPL/DF/2025-26/265DOE
Date of issue of report: 27/03/2026
Sample No. : MSKNB/DF/2025-26/03/B2J379
Date of receipt of sample: 18/03/2026
Date(s) of performance of test: 18/03/2026 - 27/03/2026
Location of performance of test: Permanent and Site Facility
Reference No. & Date : 4700116478/002, Date - 30/08/2023
Discipline: Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Water & Residue in Water
2. Description, unambiguous identification of sample	Surface Water
3. Unique identification of sample(if any)	Surface Water
4. Date of sampling	17/03/2026
5. Place of sampling	(SW-4) Canteen Discharge
6. Environmental conditions during sampling & Transport	(2 - 5)deg C Cold chain maintained
7. Sampling Plan & Method used	IS 17614 (Part - 23): 2021
8. Identification of the personnel performing sampling by	Mr. Himadri Kandar
9. Addition, deviation or exclusion from method (if any)	No

Report No. MSKPL/DF/2025-26/265DOE

Lab Sample id. : MSK/KOL/2026/1015

RESULT

Sl No.	Parameter	UOM	Method	Result
1	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44) : 2023	BDL(DL:2.0)
2	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58) : 2023	9.9
3	Oil & Grease	mg/l	IS 3025 (Part 39):2021 1.1(a)	BDL(DL:4.0)
4	Phenolic Compounds as C6H5OH	mg/l	APHA (24th EDITION, 2023)5530C	BDL(DL:0.001)
5	Residual Free Chlorine	mg/l	IS 3025 (Part 26) - 2021 1. (a)	BDL(DL:0.1)
6	Total Dissolved Solids	mg/l	IS 3025 (Part 16) : 2023	1272
7	Total Suspended Solids	mg/l	IS 3025 (Part 17) : 2022	BDL(DL:2.5)
8	pH	None	IS 3025 (Part 11) : 2022	8.46 AT 29 DEG C

Reviewed By:

Signature : *Aranya Saha*
Name : Ms. Aranya Saha
Designation : Assistant Manager

Authorized Signatory:

Signature : *Dr. Amartya Kumar Gupta*
Name : Dr. Amartya Kumar Gupta
Designation : Lab In-charge

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TC-16686



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ULR: TC-166862600001056F

TEST REPORT

Name & Address of Customer :

Tata Steel Ltd_HMC Division

HFC Complex patikhali haldia purba Medinipur west bengal
India Pin 721606

Report No. : MSKPL/DF/2025-26/E75DOB
Date of issue of report: 27/03/2026
Sample No. : MSKNB/DF/2025-26/03/6R538T
Date of receipt of sample: 18/03/2026
Date(s) of performance of test: 18/03/2026 - 27/03/2026
Location of performance of test: Permanent and Site Facility
Reference No. & Date : 4700116478/002, Date - 30/08/2023
Discipline: Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Water & Residue in Water
2. Description, unambiguous identification of sample	Surface Water
3. Unique identification of sample(if any)	Surface Water
4. Date of sampling	17/03/2026
5. Place of sampling	(SW-3) Incoming Water
6. Environmental conditions during sampling & Transport	(2 - 5)deg C Cold chain maintained
7. Sampling Plan & Method used	IS 17614 (Part - 23): 2021
8. Identification of the personnel performing sampling by	Mr. Himadri Kandar
9. Addition, deviation or exclusion from method (if any)	No

Report No. MSKPL/DF/2025-26/E75DOB

Lab Sample id. : MSK/KOL/2026/1014

RESULT

Sl No.	Parameter	UOM	Method	Result
1	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44) : 2023	4.7
2	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58) : 2023	19.8
3	Oil & Grease	mg/l	IS 3025 (Part 39):2021 1.1(a)	BDL(DL:4.0)
4	Phenolic Compounds as C6H5OH	mg/l	APHA (24th EDITION, 2023)5530C	BDL(DL:0.001)
5	Residual Free Chlorine	mg/l	IS 3025 (Part 26) - 2021 1. (a)	BDL(DL:0.1)
6	Total Suspended Solids	mg/l	IS 3025 (Part 17) : 2022	3.0
7	pH	None	IS 3025 (Part 11) : 2022	7.62 AT 31 DEG C

Opinion : NA

Statement of Conformity : NA

Remark: NA=Not Applicable, BDL = Below Detection Limit, DL = Detection Limit.
Parameters Sl. No. 5 & 7 are analysed at Site Facility.

— END —

Reviewed By:

Signature : *Aranya Saha*
Name : Ms. Aranya Saha
Designation : Assistant Manager

Authorized Signatory:

Signature : *Dr. Amartya Kumar Gupta*
Name : Dr. Amartya Kumar Gupta
Designation : Lab In-charge

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TC-16686



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ULR: TC-166862600001055F

TEST REPORT

Name & Address of Customer :

Kata Steel Ltd_HMC Division
 NFC Complex patikhali haldia purba Medinipur west bengal
 India Pin 721606

Report No. : MSKPL/FD/2025-26/RL5D01
Date of issue of report: 27/03/2026
Sample No. : MSKNB/FD/2025-26/03/4LU367
Date of receipt of sample: 18/03/2026
Date(s) of performance of test: 18/03/2026 - 27/03/2026
Location of performance of test: Permanent and Site Facility
Reference No. & Date : 4700116478/002, Date - 30/08/2023
Discipline: Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Water & Residue in Water
2. Description, unambiguous identification of sample	Surface Water
3. Unique Identification of sample(if any)	Surface Water
4. Date of sampling	17/03/2026
5. Place of sampling	(SW-2) Storm Water Pond
6. Environmental conditions during sampling & Transport	(2 - 5)deg C Cold chain maintained
7. Sampling Plan & Method used	IS 17614 (Part - 23): 2021
8. Identification of the personnel performing sampling by	Mr. Himadri Kandar
9. Addition, deviation or exclusion from method (if any)	No

Report No. MSKPL/FD/2025-26/RL5D01

Lab Sample Id. : MSK/KOL/2026/1013

RESULT

Chemical

Sl No.	Parameter	UOM	Method	Result
1	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part 44) : 2023	4.8
2	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part 58) : 2023	19.8
3	Oil & Grease	mg/l	IS 3025 (Part 39):2021 1.1(a)	BDL(DL-4.0)
4	Phenolic Compounds as C6H5OH	mg/l	APHA (24th EDITION, 2023)5630C	BDL(DL-0.001)
5	Residual Free Chlorine	mg/l	IS 3025 (Part 26) - 2021 1. (a)	BDL(DL-0.1)
6	Total Suspended Solids	mg/l	IS 3025 (Part 17) : 2022	4.0
7	pH	None	IS 3025 (Part 11) : 2022	8.39 AT 19 DEG C

Opinion : NA
 Statement of Conformity : NA

Remarks: NA=Not Applicable, BDL = Below Detection Limit, DL = Detection Limit.
 Parameters Sl. No. 6 & 7 are analyzed at Site Facility.

— END —

Reviewed By:

Signature : *Aranya Saha*
 Name : Ms. Aranya Saha
 Designation : Assistant Manager

Authorized Signatory:

Signature : *Aranya Saha*
 Name : Dr. Aranya Kumar Gupta
 Designation : Lab In-charge

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 The Portable samples are retained for 2 days and Non-portable samples - Food, Water, Soil, Solid & Liquid Waste are retained for 15 days.

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Doc No : MSKGEN/1900 (Issue No: 02, Date: 15.09.2025)

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Email: udayanlab@mitrask.com



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ULR: TC-166862600001032F



TEST REPORT

Name & Address of Customer :

Tata Steel Ltd_HMC Division

HFC Complex patikhali haldia purba Medinipur west bengal
India Pin 721606

Report No. : MSKPL/DF/2025-26/VQ5C0B
Date of issue of report: 26/03/2026
Sample No. : MSKSNB/DF/2025-26/03/3NW35F
Date of receipt of sample: 17/03/2026
Date(s) of performance of test: 17/03/2026 - 26/03/2026
Location of performance of test: Permanent and Site Facility
Reference No. & Date : 4700116478/002, Date - 30/08/2023
Discipline: Chemical

We hereby certify that the following sample Drawn by us has been analyzed with the following results:

1. Group	Water & Residue in Water
2. Description, unambiguous identification of sample	Drinking Water
3. Unique identification of sample (if any)	Drinking Water
4. Date of sampling	16/03/2025
5. Place of sampling	(DW-5) Employee Canteen
6. Environmental conditions during sampling & Transport	(2 - 5) deg C Cold chain maintained
7. Sampling Plan & Method used	IS 17614 (Part - 5): 2022
8. Identification of the personnel performing sampling by	Mr. Himadri Kandar
9. Addition, deviation or exclusion from method (if any)	No

Report No. MSKPL/DF/2025-26/VQ5C0B

Lab Sample Id. : MSK/KOL/2026/976

RESULT

Table 1: Organoleptic and Physical Parameters as per IS 10500:2012

Sl No.	Parameter	UOM	Method	Acceptable Limit	Permissible Limit	Result
1	Colour	C.U.	IS 3025 (Part 4) : 2021 1. (a)	5	15	BDL(DL:1.0)
2	Odour	None	IS 3025 (Part 5) : 2018	Agreeable	Agreeable	AGREEABLE
3	Turbidity	N.T.U.	IS 3025 (Part 10): 2023	1	5	BDL(DL:1.0)
4	Total Dissolved Solids	mg/l	IS 3025 (Part 16) : 2023	500	2000	160
5	pH	None	IS 3025 (Part 11) : 2022	6.5 - 8.5	No Relaxation	7.05 AT 14 DEG C

Reviewed By:

Signature :
Name : Mr. Arjun Saha, Mr. Sumalya Bhattacharjee
Designation : Assistant Manager, Technical In charge

Authorized Signatory:

Signature :
Name : Dr. Amartya Kumar Gupta
Designation : Lab In-charge

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Doc No : MSKGEN/1900 (Issue No: 02, Date: 15.09.2025)

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Report No. MSKPL/DF/2025-26/VQ5C0B

Lab Sample Id. : MSK/KOL/2026/976

RESULT

Table 2: General Parameters Concerning Substances Undesirable in Excessive Amounts (IS 10500:2012)

Sl No.	Parameter	UOM	Method	Acceptable Limit	Permissible Limit	Result
6	Aluminium (as Al)	microgram/l	TPMMSK/INST./93: 2023	30	200	BDL(DL:1.0)
7	Ammonia (as total ammonia- N)	mg/l	IS 3025 (Part 34/Sec1):2023 5(b)	0.5	No Relaxation	BDL(DL:0.1)
8	Anionic Surface Active Agents as (MBAS)	mg/l	IS 3025 (Part- 68):2019	0.2	1.0	BDL(DL:0.1)
9	Barium (as Ba)	microgram/l	TPMMSK/INST./93: 2023	700	No Relaxation	13.57
10	Boron (as B)	microgram/l	TPMMSK/INST./93: 2023	500	2400	94.22
11	Calcium (as Ca)	mg/l	IS 3025 (Part 40)2024 1. (a)	75	200	9.43
12	Chloramines (as Cl2)	mg/l	IS 3025 (Part 26) 2021 1. (c)	4.0	No Relaxation	BDL(DL:0.1)
13	Chloride (as Cl)	mg/l	IS 3025 (Part 32) : 1988 (2)	250	1000	43.99
14	Copper (as Cu)	microgram/l	TPMMSK/INST./93: 2023	50	1500	BDL(DL:1.0)
15	Fluoride (as F)	mg/l	IS 3025 (Part 60) Sec 1:2023 1(a)	1.0	1.5	BDL(DL:0.2)
16	Free Residual Chlorine	mg/l	IS 3025 (Part 26) 2021 1. (c)	0.2	1.0	BDL(DL:0.1)
17	Iron (as Fe)	microgram/l	TPMMSK/INST./93: 2023	1000	No Relaxation	BDL(DL:5.0)
18	Magnesium (as Mg)	mg/l	IS 3025 (Part 46)2023 1. (a)	30	100	2.86
19	Manganese (as Mn)	microgram/l	TPMMSK/INST./93: 2023	100	300	6.29
20	Mineral Oil	mg/l	IS 3025 (Part 39) 2021 1.1(b): 2021	1.0	No Relaxation	BDL(DL:1.0)
21	Nitrate (as NO3)	mg/l	IS 3025 (Part 34/Sec1):2023 6 1b	45	No Relaxation	0.62
22	Phenolic Compounds (as C6H5OH)	mg/l	IS 3025 (Part 43) Sec1:2022 1(b)	0.001	0.002	BDL(DL:0.001)
23	Selenium (as Se)	microgram/l	TPMMSK/INST./93: 2023	10	No Relaxation	BDL(DL:1.0)
24	Silver (as Ag)	microgram/l	TPMMSK/INST./93: 2023	100	No Relaxation	BDL(DL:1.0)
25	Sulphate (as SO4)	mg/l	IS 3025 (Part 24) Sec 1:2022 1.1(b)	200	400	8.31
26	Sulphide (as H2S)	mg/l	IS 3025 (Part 29) 2022 1(b)	0.05	No Relaxation	BDL(DL:0.05)
27	Total Alkalinity (as CaCO3)	mg/l	IS 3025 (Part 23):2023	200	600	47.52
28	Total Hardness (as CaCO3)	mg/l	IS 3025 (Part 21) : 2009	200	600	35.28
29	Zinc (as Zn)	microgram/l	TPMMSK/INST./93: 2023	5000	15000	2.76

Reviewed By:

Signature :
Name : Mr. Arjun Saha, Mr. Sumalya Bhattacharjee
Designation : Assistant Manager, Technical In charge

Authorized Signatory:

Signature :
Name : Dr. Amartya Kumar Gupta
Designation : Lab In-charge

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Email: udayanlab@mitrask.com



TC-16686



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ULR: TC-1668626000001032F

Report No. MSKPL/FD/2025-26/VQ5C08

Lab Sample Id. : MSK/KOL/2026/976

RESULT

Table 3: Parameters Concerning Toxic Substances as per IS 10500:2012

Sl No.	Parameter	UOM	Method	Acceptable Limit	Permissible Limit	Result
30	Cadmium (as Cd)	microgram/l	TPM/MSK/INST./93: 2023	3	No Relaxation	BDL(DL:1.0)
31	Cyanide (as CN)	mg/l	IS 3025 (Part 27) Sect:2021 1.(C)	0.05	No Relaxation	BDL(DL:0.05)
32	Lead (as Pb)	microgram/l	TPM/MSK/INST./93: 2023	10	No Relaxation	BDL(DL:1.0)
33	Mercury (as Hg)	microgram/l	TPM/MSK/INST./93: 2023	1.0	No Relaxation	BDL(DL:1.0)
34	Molybdenum (as Mo)	microgram/l	TPM/MSK/INST./93: 2023	70	No Relaxation	BDL(DL:1.0)
35	Nickel (as Ni)	microgram/l	TPM/MSK/INST./93: 2023	20	No Relaxation	BDL(DL:1.0)
36	Polychlorinated biphenyls (as PCB)	microgram/l	TPM/MSK/INST./91: 2023	0.5	No Relaxation	BDL(DL:0.01)
37	Total Arsenic (as As)	microgram/l	TPM/MSK/INST./93: 2023	10	No Relaxation	BDL(DL:1.0)
38	Total Chromium (as Cr)	microgram/l	TPM/MSK/INST./93: 2023	50	No Relaxation	BDL(DL:1.0)
39	Bromoform	mg/l	TPM/MSK/INST./160:2023	0.1	No Relaxation	BDL(DL:0.01)
40	Dibromochloro methane	mg/l	TPM/MSK/INST./160:2023	0.1	No Relaxation	BDL(DL:0.01)
41	Bromodichloro methane	mg/l	TPM/MSK/INST./160:2023	0.06	No Relaxation	BDL(DL:0.01)
42	Chloroform	mg/l	TPM/MSK/INST./160:2023	0.2	No Relaxation	BDL(DL:0.01)
43	Naphthalene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
44	Acenaphthylene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
45	Acenaphthene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
46	Fluorene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
47	Phenanthrene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
48	Anthracene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
49	Fluoranthene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
50	Pyrene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
51	Benzo[a] anthracene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
52	Chrysene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
53	Benzo[b] fluoranthene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
54	Benzo[k] fluoranthene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
55	Benzo[a] pyrene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
56	Indeno[1,2,3-cd] pyrene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)
57	Dibenzo[a,h] anthracene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)

Reviewed By:

Signature:
Name: Ms. Anupama Saha, Mr. Sumalaya Bhattacharjee
Designation: Assistant Manager, Technical In-charge

Authorized Signatory:

Signature:
Name: Dr. Amartya Kumar Gupta
Designation: Lab In-charge

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Doc No: MSK/GEN/19/00 (Issue No: 02, Date: 15.09.2025)

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Email: udayanlab@mitrask.com



TC-16686



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ULR: TC-1668626000001032F

Report No. MSKPL/FD/2025-26/VQ5C08

Lab Sample Id. : MSK/KOL/2026/976

RESULT

Table 3: Parameters Concerning Toxic Substances as per IS 10500:2012

Sl No.	Parameter	UOM	Method	Acceptable Limit	Permissible Limit	Result
58	Benzo[ghi] perylene	microgram/l	TPM/MSK/INST./91: 2023	0.1	No Relaxation	BDL(DL:0.01)

Reviewed By:

Signature:
Name: Ms. Anupama Saha, Mr. Sumalaya Bhattacharjee
Designation: Assistant Manager, Technical In-charge

Authorized Signatory:

Signature:
Name: Dr. Amartya Kumar Gupta
Designation: Lab In-charge

Results relate only to the items tested and results apply to the sample as received (for submittal sample).
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Doc No: MSK/GEN/19/00 (Issue No: 02, Date: 15/09/2025)

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Email: udayanlab@mitrask.com



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ULR: TC-166862600001032F

Report No. MSKPL/2025-26/VQ5C0B

Lab Sample Id. : MSK/KOL/2026/976

RESULT

Table 5: Pesticide Residues Limits as per IS 10500:2012

Sl No.	Parameter	UOM	Method	Acceptable Limit	Permissible Limit	Result
59	Alachlor	microgram/l	TPM/MSK/INST./91: 2023	20	No Relaxation	BDL(DL:0.01)
60	Atrazine	microgram/l	TPM/MSK/INST./91: 2023	2	No Relaxation	BDL(DL:0.01)
61	Aldrin	microgram/l	TPM/MSK/INST./91: 2023	0.03	No Relaxation	BDL(DL:0.01)
62	Dieldrin	microgram/l	TPM/MSK/INST./91: 2023	0.03	No Relaxation	BDL(DL:0.01)
63	Alpha-HCH	microgram/l	TPM/MSK/INST./91: 2023	0.01	No Relaxation	BDL(DL:0.01)
64	Beta-HCH	microgram/l	TPM/MSK/INST./91: 2023	0.04	No Relaxation	BDL(DL:0.01)
65	Butachlor	microgram/l	TPM/MSK/INST./91: 2023	125	No Relaxation	BDL(DL:0.01)
66	Chlorpyrifos	microgram/l	TPM/MSK/INST./91: 2023	30	No Relaxation	BDL(DL:0.01)
67	Delta-HCH	microgram/l	TPM/MSK/INST./91: 2023	0.04	No Relaxation	BDL(DL:0.01)
68	2,4-Dichlorophenoxyacetic acid	microgram/l	TPM/MSK/INST./159: 2023	30	No Relaxation	BDL(DL:0.01)
69	o, p-DDD	microgram/l	TPM/MSK/INST./91: 2023	1.0	No Relaxation	BDL(DL:0.01)
70	o, p-DDE	microgram/l	TPM/MSK/INST./91: 2023	1.0	No Relaxation	BDL(DL:0.01)
71	o, p-DDT	microgram/l	TPM/MSK/INST./91: 2023	1.0	No Relaxation	BDL(DL:0.01)
72	p, p-DDD	microgram/l	TPM/MSK/INST./91: 2023	1.0	No Relaxation	BDL(DL:0.01)
73	p, p-DDE	microgram/l	TPM/MSK/INST./91: 2023	1.0	No Relaxation	BDL(DL:0.01)
74	p, p-DDT	microgram/l	TPM/MSK/INST./91: 2023	1.0	No Relaxation	BDL(DL:0.01)
75	Alpha Endosulfan	microgram/l	TPM/MSK/INST./91: 2023	0.4	No Relaxation	BDL(DL:0.01)
76	Beta Endosulfan	microgram/l	TPM/MSK/INST./91: 2023	0.4	No Relaxation	BDL(DL:0.01)
77	Endosulfan sulfate	microgram/l	TPM/MSK/INST./91: 2023	0.4	No Relaxation	BDL(DL:0.01)
78	Ethion	microgram/l	TPM/MSK/INST./91: 2023	3	No Relaxation	BDL(DL:0.01)
79	Gamma-HCH(Lindane)	microgram/l	TPM/MSK/INST./91: 2023	2	No Relaxation	BDL(DL:0.01)
80	Isoproturon	microgram/l	TPM/MSK/INST./159: 2023	9	No Relaxation	BDL(DL:0.01)
81	Malathion	microgram/l	TPM/MSK/INST./91: 2023	190	No Relaxation	BDL(DL:0.01)
82	Methyl parathion	microgram/l	TPM/MSK/INST./91: 2023	0.3	No Relaxation	BDL(DL:0.01)
83	Monocrotophos	microgram/l	TPM/MSK/INST./91: 2023	1.0	No Relaxation	BDL(DL:0.01)
84	Phorate	microgram/l	TPM/MSK/INST./91: 2023	2.0	No Relaxation	BDL(DL:0.01)

Reviewed By:

Signature:
Name: Ms. Aranya Saha, Mr. Sumalya Ghatakcharyee
Designation: Assistant Manager, Technical In charge

Authorized Signatory:

Signature:
Name: Dr. Amartya Kumar Gupta
Designation: Lab In-charge

Results relate only to the items tested and results apply to the samples as received (for submitted samples).
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The Perishable samples are retained for 2 days and Non-perishable samples - Food, Water, Soil, Solid & Liquid Waste are retained for 15 days, Air Samples (Thimble, filter paper) are retained 30 days from the date of issue of the Test Report.

Head Office: Shraochy Centre (5th Floor), 74B, A.J.C. Bose Road, Kolkata - 700016, West Bengal, India.
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Mitra S. K. Private Limited

Doc No: MSK/GEN/19/00 (Issue No: 02, Date: 15/09/2025)

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West Bengal
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TEST REPORT

Name & Address of Customer :

Tata Steel Ltd., HMC Division
HFC Complex patikhali haldia purba Medinipur west bengal
India Pin 721906

Report No. :

Date of issue of report:

Sample No. :

Date of receipt of sample:

Date(s) of performance of test:

Location of performance of test :

Reference No. & Date :

Discipline:

MSKPL/2025-26/VQ5C0B

26/03/2026

MSK/2025-26/03/3NW35F

17/03/2026

17/03/2026 - 18/03/2026

Permanent Facility

4700116478/002, Date - 30/08/2023

Biological

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

1. Group	Water & Residue in Water
2. Description, unambiguous identification of sample	Drinking Water
3. Unique identification of sample(if any)	Drinking Water
4. Date of sampling	16/03/2026
5. Place of sampling	(DW-5) Employee Canteen
6. Environmental conditions during sampling & Transport	(2 - 5)deg C Cold chain maintained
7. Sampling Plan & Method used	IS 17614 (Part - 25): 2022
8. Identification of the personnel performing sampling by	Mr. Himadri Kandar
9. Addition, deviation or exclusion from method (if any)	No

Report No. MSKPL/2025-26/VQ5C0B

Lab Sample Id. : MSK/KOL/2026/976

RESULT

Table 6: Bacteriological Quality of Water as per IS 10500:2012

Sl No.	Parameter	UOM	Method	Acceptable Limit	Permissible Limit	Result
1	E coli	/100ml	IS 15185:2016	Not Detectable	Not Applicable	Not Detected
2	Total Coliform Bacteria	/100ml	IS 15185:2016	Not Detectable	Not Applicable	Not Detected

Opinion : NA

Statement of Conformity : NA

Remark: NA-Not Applicable

— END —

Reviewed By:

Signature:
Name: Ms. Maitreyee Chakraborty (Bharja)
Designation: Sr. Executive Microbiologist

Authorized Signatory:

Signature:
Name: Mr. Sukanta Palu
Designation: Technical In charge

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