

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/2023/ 29th May 2023

Sub: Half Yearly Environment Clearance Compliance Report of Tata Steel Hooghly Met Coke Division, Haldia for the period from October'22 to Mar'23

#### Reference:

- MoEF&CC letter no. F.No. J-11011/284/07-IA.II dated 29th January 2008.
- MoEF&CC letter no. F.No. J-11011/284/2007-IA.II(I) dated 23<sup>rd</sup> February 2017

Dear Sir,

This has reference to the captioned subject and cited reference. We wish to inform you that as per MoEF&CC guidelines, we were uploading the compliance of the condition stipulated in Environmental Clearance on Parivesh portal 2.0 for the period from October'22 to Mar'23 and faced technical issue to upload the compliance. We raised the issue to MoEF&CC and got the clarification stating, "New module for uploading compliance will be released soon then you may upload the compliance report". Screen shot of the complaint and clarification is attached.

In view of the above, we are submitting the Half Yearly EC Compliance Report to your good office in offline mode also. You are requested to kindly acknowledgement the same and place in your records.

Thanking you, Yours faithfully



Mantu Patra General Manager

Tata Steel Ltd, Hooghly Met coke Division, Haldia

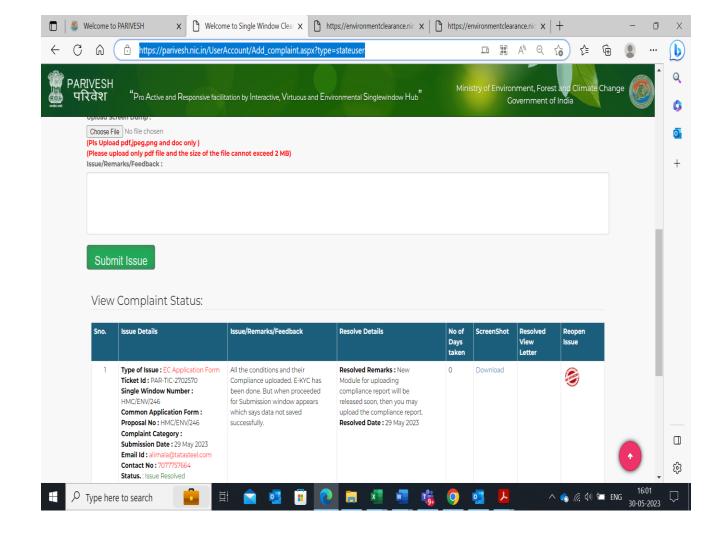
CC to

- The Zonal Officer, CPCB, South end Conclave, Block 502, 5th & 6th Floor, 1582, Razidanaa, Main Road, Kolkata, 700107
- The Member Secretary, West Bengal Pollution control board, Paribesh Bhavan, 10 A, Broadway Road, LA Block, Sector III,, Bidhan Nagar Kolkata, West Bengal-700106
- Regional Officer, West Bengal Pollution Control Board (WBPCB), Haldia Regional Office, Raghunathchak, PO- Barghasipur, PS – Bhabanipur, Dist – Purba Medinipur, Pin-721657

#### TATA STEEL LIMITED

Hoogly Met Coke Division

Patikha'il PO, Haldia Oil Refinery, Purba Mediripur, Haldia 721606, West Bengal, India Tel : 03224 251333, Fax : 03224 251305 Registered Office : Bombuy House. 24 Homi Mody Street Fort, Mumbai-400 001, India Tcl : 91 22 6665 8282 Fax : 91 22 6665 7/24 Corporate Identity Number L27100MH1907PLC000260, Website : www.tatasteel.com



**Screen Shot of Parivesh Portal 2.0** 

S. N	Condition	Compliance Status
A. Spe	ecific 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 100% 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.	<ul> <li>The unit is established after the notification of 2006 was published, and as per notification no. GSR 46(E) the Non recovery / waste heat recovery technology has been adopted for coke making.</li> <li>The coal is charged inside the oven under negative pressure for 70 hours in a temp of 950 – 1100°C; as a result, the volatiles evolved during coal carbonization is combusted completely in presence of controlled quantity of air and therefore, emission of particulate matter is very low. The stack height of 70 Mt from Ground Level is provided for proper dispersion of pollutants. The emission from all stacks are much less than 50mg/Nm3 of SPM • WHRB used as PCU.</li> <li>The emission standard specified in the Environmental Clearance, under Specific condition (iii) for stack emission has been followed.</li> <li>Online continuous stack monitoring system is also installed in all 8 chimneys.</li> <li>Regular stack monitoring is done by registered third party also. Reports enclosed as ANNEXURE - 1</li> </ul>
](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/Nm3 and reports submitted to the Ministry's Regional Office at the Bhubaneswar, WBPCB & CPCB.	<ul> <li>On-line Continuous stack monitoring equipment have been installed at all the eight (08) Nos. of stacks.</li> <li>Manual stack monitoring is also conducted on regular basis through registered third party.</li> <li>The emissions are found to be within stipulated norms.</li> <li>The Stack emission (avg.) report for last six month (Oct'22 -Mar'23) is enclosed as Annexure- 2.</li> </ul>

C N	vide letter No. F. No. J-11011//284/0	
S. N	Condition	Compliance Status
	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	<ul> <li>To control the fugitive emissions from coal handling plant, water sprinkling arrangements are made.</li> <li>Dust Suppression System with Dry fog system (DFS) are in operation at all the coal transfer points, in Wagon Tippler and Coal crusher unit. Regular Maintenance are done to maintain effectiveness of the system.</li> <li>To prevent fugitive dusts from coal heaps, 30 numbers of "Rain Gun Water Sprinklers" have been installed in the coal yard and, boundary wall (~ 5 mtr height)</li> <li>More than 2.5 Kilometres of the road inside the material handling area (Coal / Coke / Tippler area) has been paved to reduce dust generation.</li> <li>The entire coal yard and coke yard have been concreted to prevent dust generation.</li> <li>Water sprinkling is done through mobile tankers with water sprinkling arrangement on roads within factory and in the periphery area.</li> <li>Mechanised Mobile Vacuum Cleaning system is used regularly for arresting the fugitive emission.</li> <li>Stationary vacuum cleaning machine has been provided at Wagon Tippler to</li> </ul>
(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	<ul> <li>prevent fugitive dusts.</li> <li>The ovens work under the negative pressure so secondary fugitive emissions are negligible in this non recovery coke making technology.</li> <li>CPCB guidelines for non-recovery coke oven plant is followed.</li> <li>Proper sealing arrangements has been provided in the oven doors and flue gas pipes/valves so that fugitive emission from battery can be restricted.</li> </ul>
vi)	Total requirement of the water from Haldia Development Authority for coke oven and WHRB shall not exceed 5,300 m3/day and 13,750 m3/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 be treated in sewage treatment plant	The average water taken from HDA as make-up water during Oct'22 to Mar'23 was 1628.244 m2/ approximately for coke oven (Tata Steel, Hooghly Met coke) and 6519.589 m3/day approximately for WHRB (Tata Power) which is within the permissible limit granted by the MOEF. The detail water consumption report is enclosed as <b>ANNEXURE 3</b> . The processed water is recycled and used for coke quenching and green belt development within the plant. Initiatives taken for achieving Zero Discharge are:

S. N	Condition	Compliance Status
A. Spe	ecific Conditions:	
	(STP) and disposed off as per norms laid down by Haldia Municipal Corporation.	<ul> <li>A Storm water pond has been developed. The capacity of the pond is 6500 Cum (approx.).</li> <li>Pipeline has been laid in all 4 rows for use the same water for coke Quenching purpose</li> <li>Pump has been installed at the end of Row#4 drain final outlet to recirculate the water in the quenching pond.</li> <li>The domestic effluent generated from the canteen and office buildings is recycled in the process itself.</li> <li>STP has been commissioned inside the plant and phase wise all domestic effluent is being treated in this STP. The outlet water is being stored at the storm water pond and finally used for coke quenching.</li> </ul>
(vii)	Permission for the drawl of water from Haldia Development Authority shall be obtained and recommendations implemented.	Agreement (dated 30/08/2013) between Haldia Development and Tata Power is in place.
(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.	<ul> <li>Coal fines are recycled in the coke making process and coke fines are reused at out integrated steel plant at Tata Steel Jamshedpur.</li> <li>Wastes like ceramic blankets, empty oil drums, Oil contaminated wastes are disposed through the authorized TSDF.</li> <li>Used oil generated from the process are sent to authorized re-processor.</li> </ul>
(ix)	All the environment management measures given in the EIA/EMP shall be implemented and complied with.	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.	Nearly 18.50 Ha. area is being considered as green belt. As on date, total 27500 number of trees are surviving, and total Green Belt area is approximately 26% of the total 72.5 Ha plant area.

S. N	Condition	Compliance status
B. GE	NERAL CONDITIONS:	
(i)	The project authority shall adhere to the stipulations made by West Bengal Pollution Control Board (WBPCB) and State Government.	• CTO conditions are being Complied and six- monthly compliance report is submitted to WBPCB at regular basis.
(ii)	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	• EC for Expansion of Coke Oven Plant from 1.6 MTPA to 2.2 MTPA has been received on 23rd February 2017 vide F. No. J-11011//284/2007- IA II (I).
(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/Nm3 which is being maintained in last six months. Refer ANNEXURE -1.
(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	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. Ambient Air Quality Monitoring reports are attached as Annexure-4.  • One Continuous Online Ambient Air Quality Monitoring Station is available within the plant.  • Regular Ambient Noise Monitoring is conducted through accredited 3rd party.  • The half yearly data are being submitted to Ministry's Regional Office at the

S. N	Condition	Compliance status	
B. <u>GE</u>	B. GENERAL CONDITIONS:		
(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).	<ul> <li>Adequate Noise Control measures such as silencers, enclosures, hoods, rubber pads, have been provided at the appropriate places in the existing plant.</li> <li>Workers working at work areas where noise levels are high, are provided earplugs and earmuffs to reduce the noise exposure.</li> <li>Regular Noise Monitoring is conducted, and the noise level is found within prescribed limits.</li> <li>The detail report is enclosed as Annexure - 5</li> </ul>	
(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 100% of company employees in FY23.  Records are maintained at the occupational Health Centre.  All employees and their family members including contractor workers are taken COVID vaccines.  Health check-up for contractors' persons are conducted regularly during the time of the renewal of the respective gate pass.  100% check-up happened for contractor employees and records are being maintained at the OHC.	
(vii)	All the recommendations mentioned in the Corporate Responsibility for Environmental Protection (CREP) of CPCB issued for the steel plants shall be implemented	Recommendations mentioned in the Corporate Responsibility for Environmental Protection (CREP) of CPCB issued for the steel plants are implemented. <b>Attached as Annexure – 6</b>	
(viii)	The company shall undertake ecodevelopment measures including community welfare measures in the project area.	<ul> <li>The local people nearly 256 people as permanent employee and over 850 as contractual employees are being employed by the company.</li> <li>Two Nos. of Drinking Water Projects (Deep Bore well) done in schools in FY'22.</li> <li>In FY 23, three infrastructure projects are recommended to Central CSR team for scrutiny.</li> </ul>	
(ix)	The company shall develop rainwater harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	<ul> <li>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.</li> <li>The collected water is utilized in coke quenching and other purposes like gardening, water sprinkling on roads, etc.</li> </ul>	

S. N	Condition	Compliance status	
B. <u>G</u> E	B. GENERAL CONDITIONS:		
(x)	Proper housekeeping and adequate occupational health programmes shall be taken up.	<ul> <li>To maintain proper housekeeping inside plant:</li> <li>Dedicated team has been appointed for removal of scarps and maintaining proper housekeeping within the plant.</li> <li>"Colour Coded Bins have been provided at various location for waste segregation at source.</li> <li>Hazardous wastes are stored under covered shed above concrete flooring.</li> <li>Mobile vacuum cleaning machine are operated for evacuating the dust particles.</li> <li>Regular Housekeeping Audit is being conducted to improve the housekeeping in the plant.</li> <li>Periodic medical check-ups are conducted.</li> </ul>	
(xi)	A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	<ul> <li>Tata Steel Ltd., HMC Division have an Environmental Management Section (EMS) with a permanent qualified designated employee at Senior Manager level, reports directly to the General Manager of the unit, to carry out various management and monitoring functions.</li> <li>The Corporate Environment Management Cell of Tata Steel, Jamshedpur works, headed by Chief – Environment and respective Heads – Environment also monitors and supervises the environmental activities of the HMC division at a regular basis.</li> <li>Tata Power has a separate Environment Management Cell for monitoring environmental activities and statutory</li> </ul>	
(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.	utilized judiciously to implement the conditions stipulated by the Ministry of Environment and Forests.	

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 29<sup>th</sup> January 2008

S. N	Condition	Compliance status
B. GE	NERAL CONDITIONS:	
(xiii)	The Regional Office of this Ministry at Bhubaneswar / CPCB / WBPCB shall monitor the stipulated conditions. A sixmonthly 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. Last six-monthly compliance report was submitted on 30/11/2022 and the same has been submitted to WBPCB office also.
(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.	<ul> <li>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.</li> </ul>
(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.	<ul> <li>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.</li> <li>The compliance of the same was informed to MoEF (Regional Office – Bhubaneswar) through letter dated 11.03.08 by post.</li> </ul>

S. N	Condition	Compliance status
В.	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.	<ul> <li>The On-line stack monitoring, the Opacity meter have been installed in all 8 number of Chimneys and sixmonthly report are being submitted to WBPCB and MOEF, Bhubaneswar office. The last six-monthly report is enclosed as ANNEXURE - 2.</li> <li>The unit maintains the Zero Discharge throughout the year and no effluent is being discharge outside the premises. Exception only few days during peak summer season when the raw water supplied by HDA (Haldia Development Authority) the chloride level goes very high then the process water (Cooling tower discharge water) also contains very high chloride as a result it hampers the coke quality. So only for those days it can't be used for coke quenching purpose.</li> </ul>
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 / waste heat recovery technology. There is no byproduct from coke making process. Waste hot flue gas is being generated which is used for power generation with the help of WHRB.
iii.	Coke oven plant should meet visible emission standards notified by the MoEF & CC.	On-line stack monitoring, the Opacity meter has been commissioned in all Chimney. Regular stack monitoring is done by registered third party Online Ambient Air monitoring is carried out at one location and the workplace air quality, is being monitored at the regular intervals. The ambient air monitoring for 12 parameters as per National AAQ standard have also been done. The details data are enclosed as <b>ANNEXURE</b> 4.
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 treated wastewater is being recycled and used for coke quenching, Road sprinkling and for green belt development within the plant. The Sewage Treatment Plant is in operation.

S. N	Condition	Compliance status
В.	Specific conditions	-
v.	_	Swamp breeze is sold/ auctioned. Used Oil and other hazardous wastes are being disposed to the TSDF, Haldia, authorized by WBPCB.
vi.	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/Nm3 by installing energy efficient technology	number of Chimneys. The last six-monthly report is enclosed as <b>ANNEXURE -2.</b>
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.	<ul> <li>handling plant, water sprinkling arrangements are made.</li> <li>Dust Suppression System with Dry Fogging (DF) are in operation at all the coal transfer points, in Wagon Tippler and Coal crusher unit. Regular Maintenance are done to maintain effectiveness of the system.</li> <li>To prevent fugitive dusts from coal heaps, 30 numbers of "Rain Gun Water Sprinklers" have been installed in the coal</li> </ul>

S. N	Condition	Compliance status
В.	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.	2012 is for the Coke Oven (by-product type) but HMC coke oven batteries are operated under Non – recovery type technology.
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	Adequate Pollution control devices are in place & air quality parameters are being monitored. Monitoring report of last six months are attached as Annexure 1 to 5
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	<ul> <li>A Storm water pond has been developed. The capacity of the pond is 6500 Cum (approx.).</li> <li>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.</li> </ul>
xi	existing plant operations, the amount of carbon sequestered annually by the existing green belt and the quantum of equivalent CO2 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	Noted and shall be complied.

S. N	Condition	Compliance status
В.	Specific conditions	
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 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.	<ul> <li>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.</li> <li>All employees are being provided with proper PPEs and sufficient drinking water facilities are being provided inside the premises</li> </ul>
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 wastewater and process water testing is being carried out by registered 3 <sup>rd</sup> party.
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	<ul> <li>The unit has separate Onsite Emergency Plan where all possible emergencies have been identified and mitigation measures have been addressed.</li> <li>Regular mock drills are being conducted on possible emergencies.</li> </ul>
xv	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal	Utilisation and disposal of solid waste (Swamp breeze) various ideas are under study like separation of BF coke from swamp breeze etc.
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. <b>Attached as Annexure – 6</b>
xvii	Green belt shall be developed in 33% of plant area. Selection of plant species shall be as per the CPCB guidelines in consolation with the DFO	As on date, total 27500 number of trees are surviving, and total Green Belt area is approximately 26% of the total 72.5 Ha plant area.

S. N	Condition	Compliance status
В.	Specific conditions	•
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 Administration. Action taken report in this regard shall be submitted to the ministry's Regional Office.	We are going for capacity enhancement of 0.16 MTPA through process improvements only without any additional expenditure.
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 central CSR team drives the CSR activity of all units including HMC and allot the budget accordingly which is within 2% of Company (Tata Steel) profit.

S. N	Condition	Compliance status							
В.	Specific conditions								
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 directors of the company and/or stakeholders	Tata Steel's central environment policy is followed by HMC division							
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	coal handling plant, water sprinkling arrangements are made.  • Dust Suppression System with Dry							

S. N	Condition	Compliance status							
B.	Specific conditions								
		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	<ul> <li>At HMC the raw material transported through rake only which is covered with tarpaulin cover. Inside the plant the raw materials transported through covered conveyor belt only.</li> </ul>							
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.							
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.	Complied.							
ii.	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	Noted and shall be complied.							
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 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.	Data on ambient air quality and stack emission is regularly submitted along with six monthly EC compliance report.							
iv.	Industrial Waste water 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 6500 Cum capacity has been develop to collect waste water & 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.							

S. N	Condition	Compliance status						
В.	Specific conditions							
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 (night time).	<ul> <li>Adequate Noise Control measures such as silencers, enclosures, hoods, rubber pads, have been provided at the appropriate places in the existing plant.</li> <li>Workers working at work areas where noise levels are high, are provided earplugs and earmuffs to reduce the noise exposure.</li> <li>Regular Noise Monitoring is conducted, and the noise level is found within prescribed limits.</li> </ul>						
vi.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	<ul> <li>The detail report is enclosed as PME (Periodical Medical Examination) has been done for 100% of company employees in FY22. Next due on Dec 2022 in FY-23 Records are maintained at the Occupational Health Centre.</li> <li>All employees and their family members are COVID vaccinated (booster dose) and all contractor employees have received at least 2<sup>nd</sup> dose of vaccination.</li> <li>Health check-up for contractors' persons are conducted regularly during the time of the renewal of the respective gate pass.</li> <li>100% check-up happened for contractor employees and records are being maintained at the OHC.</li> </ul>						
vii.	The company shall develop rainwater harvesting structures to ha the lean season besides recharging the ground water table vest the rain water for utilization in the lead season besides recharging the ground water table.	cum has been developed  • During rain, the roof water from all building like ADM building / Store /						
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.	<ul> <li>The environmental management measures given in the REIA are implemented and being complied with.</li> <li>The local people nearly 256 people as permanent employee and over 850 as</li> <li>contractual employees are being employed by the company.</li> <li>Two Nos. of Drinking Water Projects (Deep Bore well) done in schools in FY'22.</li> </ul>						

S. N	Condition	Compliance status					
В.	Specific conditions						
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.	<ul> <li>Tata Steel Ltd., HMC Division have an Environmental Management Section (EMS) with a permanent qualified designated employee at Senior Manager level, reports directly to the General Manager of the unit, to carry out various management and monitoring functions.</li> <li>The Corporate Environment Management Cell of Tata Steel, Jamshedpur works, headed by Chief – Environment and respective Heads – Environment also monitors and supervises the environmental activities of the HMC division at a regular basis.</li> </ul>					
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.	<ul> <li>Six monthly compliance report along with the monitoring data is submitted regularly to MOEF, Regional Office, Bhubaneswar.</li> <li>Last six-monthly compliance report was submitted on 30/11/2022 and the same has also been submitted to WBPCB office.</li> </ul>					
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.	<ul> <li>Six monthly compliance report along with the monitoring data is submitted regularly to MOEF, Regional Office, Bhubaneswar.</li> <li>Last six-monthly compliance report was submitted on 30/11/2022 and the same has been submitted to WBPCB office also.</li> </ul>					

S. N	Condition	Compliance status							
В.	Specific conditions								
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, 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.	time. Environmental Statement for FY22 was							
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.	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							
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

Stack Emission Monitoring Report Monthly average For period Oct'22 to Mar'23											
Stack Name SPM (mg/Nm³)		SO2 (mg/Nm³)		NOx (mg/Nm³)							
	Prescribed Limit Result		Prescribed Limit	Result	Prescribed Limit	Result					
Chimney 1AB	50	21.06	800	315.69	500	189.69					
Chimney 1CD	50	21.30	800	313.30	500	184.94					
Chimney 2AB	50	19.52	800	290.66	500	174.91					
Chimney 2CD	50	22.84	800	342.58	500	210.28					
Chimney 3AB	50	20.51	800	348.07	500	212.75					
Chimney 3CD	50	17.75	800	323.13	500	192.77					
Chimney 4AB	50	20.53	800	327.69	500	182.46					
Chimney 4CD	50	18.03	800	342.36	500	183.30					

### Annexure-2

	Online Stack Emission Monitoring Report for SPM (in mg/Nm³)  For Period: Oct'22- Mar'23											
Stack	Oct'22	Nov'22	Dec'22	Jan'23	Feb'23	Mar'23	Average					
Chimney 1AB	26.31	23.28	27.22	31.1	32.69	37.12	29.61					
Chimney 1CD	21.99	22.99	25.48	27.5	29.08	28.38	25.91					
Chimney 2AB	17.67	16.77	16.65	12.2	30.72	34.97	21.50					
Chimney 2CD	23.09	25.16	24.48	24.6	29.89	27.05	25.71					
Chimney 3AB	24.46	23.15	23.61	30.7	26.40	29.84	26.36					
Chimney 3CD	27.95	23.88	27.81	22.1	24.64	27.51	25.64					
Chimney 4AB	25.57	26.88	25.29	26.8	29.60	30.37	27.42					
Chimney 4CD	26.12	17.83	18.39	27.8	35.89	32.22	26.38					

# **Annexure-3**

Month	Total Water	Water consumed b	y Tata Power	Water consumed by Tata steel				
	consumed (m³) (From HDA)	(m <sup>3</sup> /month	m <sup>3</sup> /day	(m <sup>3</sup> /month	m <sup>3</sup> /day			
Oct'22	245100	207562.06	6695.5503	38037.94	1227.0303			
Nov'22	246600	192110.59	6403.6863	54489.41	1757.7229			
Dec'22	241400	184573.26	5953.9761	56826.74	1894.2247			
Jan'23	214631	150344.88	4849.8348	65655.12	2117.9071			
Feb'23	216700	180212.3	6436.1536	36487.7	1303.1321			
Mar'23	317700	272128.44	8778.3368	45571.56	1470.0503			
Average Con	sumption m³/day	6519.58	39	1628.344				

## **Annexure-4**

	AMBIENT AIR QUALITY MONITORING REPORT												
	Period: Oct'22 to Mar'23												
S1. No	Sampling Stations	PM 10 μg/m <sup>3</sup>	PM <sub>2.5</sub> μg /m <sup>3</sup>	SO <sub>2</sub> μg/ m³	NO <sub>x</sub> μg / m³	CO mg/m <sup>3</sup>	Ozone (O <sub>3</sub> ) μg/m <sup>3</sup>	Lead (Pb) μg/m³	Ammonia (NH <sub>3</sub> ) μg/m <sup>3</sup>	Benzene (C <sub>6</sub> H <sub>6</sub> )	Benzo (a) Pyrene ng /m <sup>3</sup>	<b>O</b> -	Nickel (Ni) ng/m³
1	Near CCR (Centre)	75.5	40.8	8.4	36.5	0.03	<4.2	31.4	29.1	0.4	<0.5	<1.0	<5.0
2	Back Side of ADM Building (South side)		35.0	7.4	36.5	0.02	<4.2	31.5	30.5	0.3	<0.5	<1.0	<5.0
3	Near Coal Yard (East Side)	96.1	51.3	9.4	46.7	0.03	<4.2	37.1	32.6	0.6	<0.5	<1.0	<5.0
4	Patikhali Gate (North Side)	80.9	42.5	8.6	43.1	0.02	<4.2	33.2	33.2	0.5	<0.5	<1.0	<5.0
5	Near Simplex Gate / ENS office (West Side)	88.3	46.1	8.9	45.3	0.0	<4.2	38.2	30.4	0.5	<0.5	<1.0	<5.0

## **Annexure-5**

	N	OISE Q					RT (in c	lBA)					
			Peri	od: Oct	<b>22</b> to 1	Mar'23							
Sl.No	NOISE MONITORING	Oct'22	Oct'22		Nov'22		Dec'22		3	Feb'23		Mar'23	
	LOCATIONS	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
1	Stamping Station-1	56.0	49.7										
2	Junction House-7	55.4	49.5					54.5	49.2			53.0	49.2
3	Near Patikhali Gate	54.2	48.9			52.8	49.2			53.1	49.8	54.7	49.1
4	Near Simplex Gate	52.3	47.1			50.6	47.1			50.4	47.0	52.7	48.0
5	Occupational Health Center	53.5	47.5			52.0	47.0			48.6	46.1	53.5	48.7
6	Wagon Tippler			55.6	48.7					59.3	54.0		
7	Crusher House			55.1	48.8					57.7	51.7		
8	Admin Building			52.7	47.6			52.0	48.1				
9	CCR			52.4	49.3			53.9	48.9				
10	Engineering Service Center			52.8	48.4			52.8	49.3				
11	Blending Bunker Floor					52.4	48.8						
		1				1		1			1		1

51.6

48.6

54.9

52.1

54.3

51.1

12

13

14

Screen House

**Stamping Station-2** 

Stamping Station-3