



TSL/FAMD/FAPG/FY25/1451

Dt.28/11/2024

To,
The Member Secretary
State Pollution Control Board
A/118, Paribesh Bhawan,
Nilakantha Nagar, Bhubaneswar-751012

Sub: Submission of Half Yearly EC & CRZ Compliance for the period April'24 to Oct'24.

Ref: Letter No. J-11011/55/2011-1A-II(I) Dated 14.08.12 & 11-63/2012 Dated 18/3/13

Dear Sir,

We are enclosing the herewith half yearly Compliance return on Environment Clearance & CRZ Clearance for 55000 TPA High Carbon Ferro-Chrome plant for the period of April'24 to Oct'24.

This is for your kind information.

Thanking You,
Yours Truly,
For Tata Steel Limited

(A. Rambabu)
Plant Head & Factory Manager
Ferro Chrome Plant, Gopalpur

Copy to: Regional Officer, State Pollution Control Board,
Berhampur

TATA STEEL LIMITED

Project Gopalpur Gajapati Nagar Main lane Berhampur 760010 Dist. Ganjam odisha India

Tel +91 680 2290212 2290046

Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001

Tel 91 22 66658282 Fax 91 22 66657724

Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

**Half Yearly Compliance Report
2024
01 Dec(01 Apr - 30 Sep)**

Acknowledgement

Proposal Name		Proposed 55000 TPA High Carbon Ferro-Chrome Plant, 400000 TPA Rebar Mill and Desalination Plant at Gopalpur, Villages Chamkhandi, Sindhigaon Jagannathpur, Tehsil Chatrapur, District Ganjam, Odisha by M/s Tata Steel Limited	
Name of Entity / Corporate Office		Tata Steel Ltd	
Village(s)		N/A	
District		GANJAM	
Proposal No.	IA/OR/IND/5586/2011	Category	Industrial Projects - 1
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	ODISHA	Entity's PAN	*****2803M
MoEF File No.	J-11011/55/2011-IA.II(I)	Entity name as per PAN	UTSAV KASHYAP

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Dec(01 Apr - 30 Sep)

Details of Production and Project Area

Name of Entity / Corporate Office Tata Steel Ltd

	Project Area as per EC Granted	Actual Project Area in Possession
Private	140.426	140.426
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	140.426	140.426

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	High Carbon Ferro Chrome	Tons per Annum (TPA)	31/03/2026	55000	55000	55000

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The proponent shall obtain necessary CRZ clearance under the provision of CRZ Notification, 2010
PPs Submission: Complied CRZ Clearance has been granted under the provision of CRZ Notification, 2011 on 18.03.2013 vide letter no. F No. 11-63/2012-IA.III from MoEFCC (IA Division). Annexure 1		Date: 28/11/2024
2	WASTE MANAGEMENT	No Charcoal shall be used as fuel. Pet Coal should be used as fuel instead of charcoal from unknown sources.
PPs Submission: Complied No Charcoal is used as fuel for plant operations.		Date: 28/11/2024
3	AIR QUALITY MONITORING AND PRESERVATION	Continuous monitoring facilities for all the stacks and sufficient air pollution control equipment viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace shall be provided to control emission below 50 mg/Nm ³
PPs Submission: Complied Continuous monitoring of PM for process stack is in place in SAF-1 and SAF-2, BQT Plant and Monthly report is being submitted to SPCB. Fume Extraction System with bag filters and ID fan has been installed to control emission. Adequate stack height is maintained in submerged arc furnace. Dust extraction and DFDS system is installed to check dust emissions. Annexure 2		Date: 28/11/2024
4	AIR QUALITY MONITORING AND PRESERVATION	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 shall be followed.
PPs Submission: Complied Ambient quality around the plant is being complying to NAAQS-2009 Standards. Annexure 3		Date: 28/11/2024
5	AIR QUALITY MONITORING AND PRESERVATION	Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.
PPs Submission: Complied Mobile Water sprinkler of 10 kL capacity is being used on roads/operating areas on a regular basis to control the fugitive emissions. In addition to this Permanent Road sprinkler of 1.2 KM is installed to suppress the Dust.		Date: 28/11/2024
6	WATER QUALITY MONITORING AND PRESERVATION	The total water requirement shall not exceed 5.5 MLD. "Zero" effluent discharge shall be strictly followed, and no wastewater should be discharged outside the premises.
PPs Submission: Complied The water requirement for 55,000 TPA of Ferro Chrome Plant is 2000 KLD approx. The ETP and STP have been installed and no wastewater is discharged outside the premises. Annexure 4		Date: 28/11/2024
7	WATER QUALITY MONITORING AND PRESERVATION	Efforts shall be made to make use of rainwater harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.

PPs Submission: Complied The existing water reservoir of 6.5 lakhs KL capacity is also used to store the rainwater during the monsoon. Rainwater post treatment is used to meet the water requirement.		Date: 28/11/2024
8	WATER QUALITY MONITORING AND PRESERVATION	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 or described under the Environment (Protection) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry' Regional Office at Bhubaneswar, SPCB and CPCB.
PPs Submission: Complied Surface water quality monitoring is being carried out regularly around the project site by third party registered and NABL accredited labs. Upstream and Down stream Surface water is carried out for monitoring every Month. Annexure-5		Date: 28/11/2024
9	Corporate Environmental Responsibility	All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 20th September 2011 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.
PPs Submission: Complied Commitments made to the public during public hearing are being regularly implemented and monitored by Tata Steel Foundation (TSF) within the allocated budget.		Date: 28/11/2024
10	GREENBELT	As proposed green belt should be developed in at least 33 percent of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
PPs Submission: Complied Green belt development has been taken up in phase wise manner. Over 53712 saplings have been planted so far with an average survival rate greater than 95 percent.		Date: 28/11/2024
11	Corporate Environmental Responsibility	At least 5 percent of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Office at Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.
PPs Submission: Complied Separate budget has been earmarked for the CSR activities, community as well as peripheral development activities such as Health, drinking water, Education, Environment etc. and is being done by our Tata Steel Foundation wing. Rs 621.01 lacs have been spent towards the above-mentioned activities in April 2024 to September 2024.		Date: 28/11/2024
12	MISCELLANEOUS	The Company shall provide housing for construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
PPs Submission: Complied Necessary infrastructure and facilities for the construction labors were provided during the construction Work.		Date: 28/11/2024
13	Corporate Environmental Responsibility	The Company shall submit within three months their policy towards Corporate Environment Responsibility which should 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 environmental clearance conditions and (iii) System of reporting of noncompliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.
PPs Submission: Complied The Corporate Environment Policy is in place and has been submitted to the MoEFCC vide letter no. OP-Env /C-04/52/2012 dated 12.11.2012 with a copy to Regional Office, OSPCB.		Date: 28/11/2024
14	Statutory compliance	All the Ferro chrome slag shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) Test. Otherwise, hazardous substances shall be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.
PPs Submission: Complied Ferro Chrome Slag testing for Toxic Chemical Leachability Potential (TCLP) has been done from IMMT. No hazardous substances found. The same can be used for landfill in low lying areas inside our plant premise.		Date: 28/11/2024
15	Risk Mitigation and Disaster Management	Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance letter.
PPs Submission: Complied Risk and Disaster Management Plan along with the mitigation measures have been submitted to the MoEF vide letter no. OP-Env/C-04/52/2012 dated 12.11.2012 along with a copy to Eastern Regional Office, MoEF and Odisha State Pollution Control Board, Bhubaneswar. Additionally, an onsite emergency plan approved by Directorate of Factories and Boilers is also in place.		Date: 28/11/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	Noise Monitoring & Prevention	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).
PPs Submission: Complied Ambient Noise monitoring is continuously monitored. Plant area is maintained within the standards. Noise Quality monitoring results is attached Refer Annexure-6.		Date: 28/11/2024
2	AIR QUALITY MONITORING AND PRESERVATION	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, 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 Bhubaneswar and the SPCB/CPCB once in six months.

PPs Submission: Complied Four ambient Air Quality and fugitive Emission monitoring stations installed. The monitored values concentration of PM10, SO2 and NOX etc. are complying to norms. The Air Quality, Fugitive emission and Stack monitoring result is attached as Annexure-3.		Date: 28/11/2024
3	Corporate Environmental Responsibility	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 programs, educational programs, drinking water supply and health care etc.
PPs Submission: Complied Environmental Protection measures as indicated in the EIA and EMP report have been implemented. Socio-economic developmental activities in Health, Education, Sports, agriculture, and infrastructure development are being carried out in the surrounding and periphery villages.		Date: 28/11/2024
4	PUBLIC HEARING	Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.
PPs Submission: Complied Separate budget has been earmarked towards capital and operating environment expenditure. Environment Annual Budget - Approx. Rs. 33,22,445/-		Date: 28/11/2024
5	Statutory compliance	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 suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.
PPs Submission: Complied Environment Clearance copy has been submitted to the concerned Govt. /Private Bodies in Aug 2012. Environment Clearance letter has been uploaded on the Tata Steel website, www.tatasteel.com		Date: 28/11/2024
6	Statutory compliance	The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent the Regional Office of the MoEF at Bhubaneswar. 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, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
PPs Submission: Complied Last six-monthly compliance reports have been uploaded to the company's website www.tatasteel.com. Electronic multi-line display board installed to display the criteria pollutant levels namely, PM10, SO2, NOX or critical sectoral parameters, indicated for the projects at main gate of the company for the public domain. The compliance reports are being sent to the Regional Office, MoEFCC and the respective zonal office of CPCB and SPCB.		Date: 28/11/2024
7	Statutory compliance	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 e-mail) to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar/ CPCB/ SPCB shall monitor the stipulated conditions.
PPs Submission: Complied Last Six-Monthly Compliance report for the period Oct 2022 to March 2022 was submitted to MoEFCC/OSPCB Regional Office both in hard as well as soft copy in 29th May 23.		Date: 28/11/2024
8	Statutory compliance	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 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 MoEF at Bhubaneswar by e-mail.
PPs Submission: Complied The environmental statement has been submitted every year and the same has been uploaded on company s website www.tatasteel.com.		Date: 28/11/2024
9	PUBLIC HEARING	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 and Forests at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local 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 Bhubaneswar.
PPs Submission: Complied Complied. Paper advertisement details are as follows; a. Odia: SAMBAD, Page No. 9 b. English: The New Indian Express, Page no. 5 Advertisement details have been submitted to the MoEF Eastern Regional Office at Bhubaneswar on 19.08.12 and were also attached with the 1st Half Yearly Compliance Report.		Date: 28/11/2024
10	Statutory compliance	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.
PPs Submission: Complied Project received final approval from Tata Steel Board in August 2010 and is being funded through internal accruals. Ground levelling activities were started on 04.05.2013 and the same was being intimated to the board vide letter no PG-Env/C-01/03/2013 and PG-Env/C-01/04/2013, dated 10th May 2013. However, frequent strikes by the local people have deferred the plant operation.		Date: 28/11/2024
11	Statutory compliance	The project authorities must strictly adhere to the stipulations made by the Orissa State Pollution Control Board and the State Government.
PPs Submission: Complied Stipulations as made by the State and Central Govt. are being adhered to from time to time.		Date: 28/11/2024
12	Statutory compliance	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.

PPs Submission: Complied Amendment to Environmental Clearance was granted by MoEFCC vide File no. J-11011/55/2011-IA II(I) on 08.08.2014.		Date: 28/11/2024
13	AIR QUALITY MONITORING AND PRESERVATION	The gaseous emissions from various process units shall confirm to the load/mass-based standards notified by the Ministry on 19th May 1993 and standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.
PPs Submission: Complied The Process units have the gaseous emissions under control and below the prescribed limits.		Date: 28/11/2024
14	WATER QUALITY MONITORING AND PRESERVATION	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.
PPs Submission: Complied Industrial wastewater generated is being treated in Effluent Treatment Plant conforming to the standards and treated wastewater is recycled and re-used for green belt development, water sprinkling on roads, metal cooling activity etc. Annexure 4.		Date: 28/11/2024
15	Statutory compliance	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
PPs Submission: Complied Health Records of the workers are being maintained as per Factories Act. Pre-Employment Medical check-up prior to the issue of their gate pass to work inside the site and Periodic Medical Check-up for the workers is being done.		Date: 28/11/2024
16	WATER QUALITY MONITORING AND PRESERVATION	The company shall develop surface water harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.
PPs Submission: Complied A water reservoir of 6.5 lakhs Liter capacity is in place to store the rainwater post monsoon which will be used for plant operation post requisite treatment.		Date: 28/11/2024
<h3 style="text-align: center;">Visit Remarks</h3>		
Last Site Visit Report Date:		N/A
Additional Remarks:		
<p>Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.</p>		



Half-Yearly Compliance Report

On

Environmental Clearance Conditions

For

55,000 TPA High Carbon Ferro-Chrome Plant

EC vide F No. J-11011/55/2011-IA-II (I) dtd. 14/08/2012 and

Period: April 2024 – September 2024

Submitted By:

M/s. Tata Steel Limited

At- Gopalpur, Tehsil- Chhatarpur,
District- Ganjam, Odisha

Sl.	Condition	Compliance Status
Specific EC Conditions		
1	The proponent shall obtain necessary CRZ clearance under the provision of CRZ Notification, 2010	CRZ Clearance has been granted under the provision of CRZ Notification, 2011 on 18.03.2013 vide letter no. F No. 11-63/2012-IA.III from MoEFCC (IA Division). Annexure 1
2	No Charcoal shall be used as fuel. Pet Coal should be used as fuel instead of charcoal from unknown sources.	No Charcoal is used as fuel for plant operations.
3	Continuous monitoring facilities for all the stacks and sufficient air pollution control equipment viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace shall be provided to control emission below 50 mg/Nm ³	Continuous monitoring of PM for process stack is in place in SAF-1 & SAF-2, BQT Plant and Monthly report is being submitted to SPCB. Fume Extraction System with bag filters and ID fan has been installed to control emission. Adequate stack height is maintained in submerged arc furnace. Dust extraction & DFDS system is installed to check dust emissions. Annexure 2
4	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November 2009 shall be followed.	Ambient quality around the plant is being complying to NAAQS-2009 Standards. Annexure 3
5	Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.	Mobile Water sprinkler of 10 kL capacity is being used on roads/operating areas on a regular basis to control the fugitive emissions. In addition to this Permanent Road sprinkler of 1.2 KM is installed to suppress the Dust.
6	The total water requirement shall not exceed 5.5 MLD. 'Zero' effluent discharge shall be strictly followed, and no wastewater should be discharged outside the premises.	The water requirement for 55,000 TPA of Ferro Chrome Plant is 2000 KLD approx. The ETP and STP have been installed and no wastewater is discharged outside the premises. Annexure 4
7	Efforts shall be made to make use of rainwater harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.	The existing water reservoir of 6.5 lakhs KL capacity is also used to store the rainwater during the monsoon. Rainwater post treatment is used to meet the water requirement.
8	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 or described under the Environment (Protection) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry'	Surface water quality monitoring is being carried out regularly around the project site by third party registered and NABL accredited labs. Upstream & Down stream Surface water is carried out for monitoring every Month. Annexure-5

Sl.	Condition	Compliance Status
	Regional Office at Bhubaneswar, SPCB and CPCB.	
9	All the Ferro chrome slag shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) Test. Otherwise, hazardous substances shall be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.	Ferro Chrome Slag testing for Toxic Chemical Leachability Potential (TCLP) has been done from IMMT. No hazardous substances found. The same can be used for landfill in low lying areas inside our plant premise.
10	Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance letter.	Risk and Disaster Management Plan along with the mitigation measures have been submitted to the MoEF vide letter no. OP-Env/C-04/52/2012 dated 12.11.2012 along with a copy to Eastern Regional Office, MoEF and Odisha State Pollution Control Board, Bhubaneswar. Additionally, an onsite emergency plan approved by Directorate of Factories & Boilers is also in place.
11	All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 20th September 2011 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.	Commitments made to the public during public hearing are being regularly implemented and monitored by Tata Steel Foundation (TSF) within the allocated budget.
12	As proposed green belt should be developed in at least 33% of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	Green belt development has been taken up in phase wise manner. Over 53712 saplings have been planted so far with an average survival rate greater than 95%.
13	At least 5% of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Office at Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.	Separate budget has been earmarked for the CSR activities, community as well as peripheral development activities such as Health, drinking water, Education, Environment etc. and is being done by our Tata Steel Foundation wing. Rs 621.01 lacs have been spent towards the above-mentioned activities in April 2024 to September 2024.
14	The Company shall provide housing for construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Necessary infrastructure & facilities for the construction labors were provided during the construction Work.

Sl.	Condition	Compliance Status
15	The Company shall submit within three months their policy towards Corporate Environment Responsibility which should 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 environmental clearance conditions and (iii) System of reporting of noncompliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.	The Corporate Environment Policy is in place and has been submitted to the MoEFCC vide letter no. OP-Env /C-04/52/2012 dated 12.11.2012 with a copy to Regional Office, OSPCB.
EC - General Conditions		
1	The project authorities must strictly adhere to the stipulations made by the Orissa State Pollution Control Board and the State Government.	Stipulations as made by the State & Central Govt. are being adhered to from time to time.
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Amendment to Environmental Clearance was granted by MoEFCC vide File no. J-11011/55/2011-IA II(I) on 08.08.2014.
3	The gaseous emissions from various process units shall conform to the load/mass-based standards notified by the Ministry on 19th May 1993 and standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	The Process units have the gaseous emissions under control and below the prescribed limits.
4	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM ₁₀ , SO ₂ 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 Bhubaneswar and the SPCB/CPCB once in six months.	Four ambient Air Quality & fugitive Emission monitoring stations installed. The monitored values concentration of PM ₁₀ , SO ₂ and NOX etc. are complying to norms. The Air Quality, Fugitive emission and Stack monitoring result is attached as Annexure-3 .
5	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated 19 th May 1993 and 31 st	Industrial wastewater generated is being treated in Effluent Treatment Plant conforming to the standards and treated wastewater is recycled and re-used for green

Sl.	Condition	Compliance Status
	December 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	belt development, water sprinkling on roads, metal cooling activity etc. Annexure 4.
6	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).	Ambient Noise monitoring is continuously monitored. Plant area is maintained within the standards. Noise Quality monitoring results is attached Refer Annexure-6.
7	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Health Records of the workers are being maintained as per Factories Act. Pre-Employment Medical check-up prior to the issue of their gate pass to work inside the site and Periodic Medical Check-up for the workers is being done.
8	The company shall develop surface water harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	A water reservoir of 6.5 lakhs Liter capacity is in place to store the rainwater post monsoon which will be used for plant operation post requisite treatment.
9	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 programs, educational programs, drinking water supply and health care etc.	Environmental Protection measures as indicated in the EIA and EMP report have been implemented. Socio-economic developmental activities in Health, Education, Sports, agriculture, and infrastructure development are being carried out in the surrounding and periphery villages.
10	Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.	Separate budget has been earmarked towards capital and operating environment expenditure. Environment Annual Budget – Approx. Rs. 33,22,445/-
11	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	Environment Clearance copy has been submitted to the concerned Govt. /Private Bodies in Aug 2012. Environment Clearance letter has been uploaded on the Tata Steel website, www.tatasteel.com

Sl.	Condition	Compliance Status
	suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	
12	The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent the Regional Office of the MoEF at Bhubaneswar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	<p>Last six-monthly compliance reports have been uploaded to the company's website www.tatasteel.com.</p> <p>Electronic multi-line display board installed to display the criteria pollutant levels namely, PM₁₀, SO₂, NO_x or critical sectoral parameters, indicated for the projects at main gate of the company for the public domain.</p> <p>The compliance reports are being sent to the Regional Office, MoEFCC and the respective zonal office of CPCB and SPCB.</p>
13	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 e-mail) to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar/ CPCB/ SPCB shall monitor the stipulated conditions.	Last Six-Monthly Compliance report for the period Oct'2022 to March'2022 was submitted to MoEFCC/OSPCB Regional Office both in hard as well as soft copy in 29th May'23.
14	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 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 MoEF at Bhubaneswar by e-mail.	The environmental statement has been submitted every year and the same has been uploaded on company's website www.tatasteel.com .
15	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	<p>Complied. Paper advertisement details are as follows;</p> <p>a. Odia: SAMBAD, Page No. 9</p> <p>b. English: The New Indian Express, Page no. 5</p> <p>Advertisement details have been submitted to the MoEF Eastern Regional Office at Bhubaneswar on 19.08.12 and</p>

Sl.	Condition	Compliance Status
	Ministry of Environment and Forests at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local 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 Bhubaneswar.	were also attached with the 1st Half Yearly Compliance Report.
16	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.	<p>Project received final approval from Tata Steel Board in August 2010 and is being funded through internal accruals.</p> <p>Ground levelling activities were started on 04.05.2013 and the same was being intimated to the board vide letter no PG-Env/C-01/03/2013 & PG-Env/C-01/04/2013, dated 10th May 2013. However, frequent strikes by the local people have deferred the plant operation.</p>

**Half Yearly Compliance Report
2024
01 Dec(01 Apr - 30 Sep)**

Acknowledgement

Proposal Name	FAP Gopalpur - CRZ Clearance for sea water intake and brine discharge from 1.2 MGD desalination plant for 400000 TPA Rebar Mill and 55,000 PA Ferro Chrome Plant at Gopalpur , Ganjam District, Odisha				
Name of Entity / Corporate Office	Tata Steel Limited				
Village(s)	CHAMAKHANDI				
District	GANJAM				
Proposal No.	11-63/2012/2012 10830/F E	Category	Only CRZ		
Plot / Survey / Khasra No.		Sub-District	CHAMAKHANDI		
State	ODISHA	Entity's PAN	*****2803M		
MoEF File No.	11-63/2012-IA.III	Entity name as per PAN	UTSAV KASHYAP		

Compliance Reporting Details

Reporting Year 2024
Remarks (if any)
Reporting Period 01 Dec(01 Apr - 30 Sep)

Details of Production and Project Area

Name of Entity / Corporate Office Tata Steel Limited

	Project Area as per EC Granted	Actual Project Area in Possession
Private	140.426	140.426
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	140.426	140.426

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	High Carbon Ferro Chrome	Tons per Annum (TPA)	31/03/2026	55000	55000	55000

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	WATER QUALITY MONITORING AND PRESERVATION	The outfall shall be at 1 km from shore at 12 m CD.
PPs Submission: Complied Outfall has been identified at more than 1 Km from shoreline at 12 m CD.		Date: 28/11/2024
2	Statutory compliance	Though the sumps and pump house are located beyond CRZ area, in view of its proximity to Sea, necessary prior permission shall be obtained for construction of sump from the competent authority as applicable. Copy of the clearance shall be submitted to the Regional Office, MoEF prior to the commencement of the work.
PPs Submission: Agreed to Comply Noted, Will be obtained if required.		Date: 28/11/2024
3	Statutory compliance	No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
PPs Submission: Agreed to Comply No Construction other than the permitted work will be carried out in CRZ area.		Date: 28/11/2024
4	Statutory compliance	All the recommendations of the CZMA shall be followed.
PPs Submission: Complied CZMA recommendations are compiled and being followed from time to time.		Date: 28/11/2024
5	Statutory compliance	All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-Regional Office.
PPs Submission: Complied Mitigation measures along with its compliance as identified in the EIA report has been prepared in the matrix table and is attached in Annexure A.		Date: 29/11/2024
6	MISCELLANEOUS	Screens and trash bars shall be provided to avoid entry of fishes and fish larvae into the system
PPs Submission: Agreed to Comply Coarse Bar Screens and Fine Screens have been provisioned to avoid the entry of fishes into the intake pipelines and system.		Date: 28/11/2024
7	MISCELLANEOUS	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.
PPs Submission: Agreed to Comply Funds earmarked for environment expenditure shall not be diverted for any other purpose.		Date: 28/11/2024
8	WATER QUALITY MONITORING AND	Periodic monitoring of coastal water shall be carried out at outfall location.

	PRESERVATION	
PPs Submission: Complied There will be Water Quality Monitoring at outfall location periodically by third party registered and accredited laboratories during the operational phase.		Date: 28/11/2024
9	MISCELLANEOUS	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.
PPs Submission: Agreed to Comply An environment management team under the guidance of Factory Manager will take care of the implementation of the stipulated environmental safeguards.		Date: 28/11/2024
10	Marine/Coastal	There shall be no disturbance to the sand dunes.
PPs Submission: Complied No disturbance to the Sand dunes is envisaged in the due course of activity.		Date: 28/11/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	The project proponents 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 start of land development work.
PPs Submission: Agreed to Comply The funding to this project is through internal accruals as approved by Tata Steel Board in August 2010. The project received final approval from MoEFCC in August 2012 and CRZ clearance in March 2013. Construction activity in the CRZ area is yet to start which shall be intimated to the ministry prior to its start. We have only 55,000 TPA HCFEcr plant in Operation.		Date: 28/11/2024
2	MISCELLANEOUS	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website
PPs Submission: Complied Last six-monthly compliance reports have been uploaded to the company's website www.tatasteel.com .		Date: 28/11/2024
3	MISCELLANEOUS	Full support shall be extended to the officers of this Ministry/Regional Office at Bhubaneswar by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
PPs Submission: Agreed to Comply Full support and coordination will be extended to the Officers of MoEFCC, Regional Office during inspection of the project. Action plan incorporating mitigation measures will be furnished during inspection.		Date: 28/11/2024
4	MISCELLANEOUS	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded

		CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhubaneswar.
PPs Submission: Complied Grant of CRZ clearance has been advertised on 23.03.2013 in two local newspapers namely SAMBAD in Odia language (page no. 13) and The New Indian Express in English language (page no. 3) Advertisement details have been submitted to the MoEF Eastern Regional Office at Bhubaneswar vide letter no. PG-Env/C-01/01/13 dated 01.04.13 and to the MS, OSPCB Bhubaneswar vide letter no. PG-Env/C-01/02/13 dated 02.04.13 and also with the first six monthly CRZ compliance report submitted to the ministry on 29th Nov 2013.		Date: 28/11/2024
5	MISCELLANEOUS	This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.
PPs Submission: Agreed to Comply As applicable.		Date: 28/11/2024
6	MISCELLANEOUS	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
PPs Submission: Complied Not applicable.		Date: 28/11/2024
7	MISCELLANEOUS	The proponent shall upload the status of compliance of the stipulated Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB
PPs Submission: Complied Last six-monthly compliance reports have been sent to the regional office of MoEF Bhubaneswar and SPCB Bhubaneswar and have also been uploaded to the company's website www.tatasteel.com .		Date: 28/11/2024
8	Statutory compliance	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.
PPs Submission: Partially Complied All the stipulations under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006, including the amendments and rules made thereafter will be ensured from time to time.		Date: 28/11/2024
9	MISCELLANEOUS	A copy of the clearance letter shall be sent by the proponent to concern Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

PPs Submission: Complied Copy of the clearance letter has been submitted on 25.11.2013 to the concerned Panchayat, Zilla Parishad, Municipal Corporation etc. Moreover, CRZ clearance letter has been uploaded on the Tata Steel website, www.tatasteel.com.		Date: 28/11/2024
10	MISCELLANEOUS	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
PPs Submission: Complied Last Six-monthly compliance reports including the results of monitored data was submitted on 29th May 2024 to the Regional Office of MoEF and OSPCB in hard copy as well as soft copy through e-mail.		Date: 28/11/2024
11	MISCELLANEOUS	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
PPs Submission: Complied Compliance to all stipulated conditions is ensured.		Date: 28/11/2024
12	MISCELLANEOUS	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhubaneswar regarding the implementation of the stipulated conditions.
PPs Submission: Complied Last six-monthly compliance reports were submitted to MoEFCC Regional Office at Bhubaneswar on 29th May 2024.		Date: 28/11/2024
13	MISCELLANEOUS	Ministry of Environment and Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary, in the interest of environment and the same shall be complied with.
PPs Submission: Agreed to Comply Additional conditions as stipulated by competent authority in the interest of environment shall be complied with.		Date: 28/11/2024
14	MISCELLANEOUS	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.
PPs Submission: Agreed to Comply In case of change in project profile or implementation agency, a fresh application shall be made to MoEFCC.		Date: 28/11/2024
15	MISCELLANEOUS	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
PPs Submission: Agreed to Comply All other statutory clearances will be obtained from the respective competent authorities before construction/operation as applicable.		Date: 28/11/2024

16	WATER QUALITY MONITORING AND PRESERVATION	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality
PPs Submission: Agreed to Comply Preventive measures will be taken while carrying out digging activities so that the water quality is not degraded.		Date: 28/11/2024
17	MISCELLANEOUS	Odisha Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tahsildar's office for 30 days.
PPs Submission: Complied A Copy of clearance letter has been sent to the regional office -SPCB.		Date: 28/11/2024
18	Statutory compliance	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 Clearance conditions and' shall also be sent to the respective Regional Office of MoEF by e-mail.
PPs Submission: Complied The environmental statement has been submitted every year and the same has been uploaded on company s website www.tatasteel.com.		Date: 28/11/2024
<p style="text-align: center;">Visit Remarks</p>		
Last Site Visit Report Date:		N/A
Additional Remarks:		
<p>Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.</p>		



Half-Yearly Compliance Report

On

Environmental Clearance Conditions

For

55,000 TPA High Carbon Ferro-Chrome Plant

CRZ clearance vide F no 11-63/2012-IA.III dated 18/03/2013

Period: April 2024 – September 2024

Submitted By:

M/s. Tata Steel Limited

At- Gopalpur, Tehsil- Chhatarpur,
District- Ganjam, Odisha

Sl.	Condition	Compliance Status
CRZ – Specific Conditions		
1	Though the sumps and pump house are located beyond CRZ area, in view of its proximity to Sea, necessary prior permission shall be obtained for construction of sump from the competent authority as applicable. Copy of the clearance shall be submitted to the Regional Office, MoEF prior to the commencement of the work.	Noted, Will be obtained if required.
2	Screens and trash bars shall be provided to avoid entry of fishes and fish larvae into the system	Coarse Bar Screens & Fine Screens have been provisioned to avoid the entry of fishes into the intake pipelines & system.
3	The outfall shall be at 1 km from shore at 12 m CD.	Outfall has been identified at more than 1 Km from shoreline at 12 m CD.
4	All the recommendations of the CZMA shall be followed.	CZMA recommendations are compiled and being followed from time to time.
5	There shall be no disturbance to the sand dunes.	No disturbance to the Sand dunes is envisaged in the due course of activity.
6	All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-Regional Office.	Mitigation measures along with its compliance as identified in the EIA report has been prepared in the matrix table and is attached in Annexure I.
7	Periodic monitoring of coastal water shall be carried out at outfall location.	There will be Water Quality Monitoring at outfall location periodically by third party registered and accredited laboratories during the operational phase.
8	No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	No Construction other than the permitted work will be carried out in CRZ area.
9	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	An environment management team under the guidance of Factory Manager will take care of the implementation of the stipulated environmental safeguards.
10	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Funds earmarked for environment expenditure shall not be diverted for any other purpose.
CRZ General Conditions		
1	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality	Preventive measures will be taken while carrying out digging activities so that the water quality is not degraded.

Sl.	Condition	Compliance Status
2	Full support shall be extended to the officers of this Ministry/Regional Office at Bhubaneswar by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Full support and coordination will be extended to the Officers of MoEF & CC, Regional Office during inspection of the project. Action plan incorporating mitigation measures will be furnished during inspection.
3	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhubaneswar regarding the implementation of the stipulated conditions.	Last six-monthly compliance reports were submitted to MoEF & CC Regional Office at Bhubaneswar in 29th May 2024.
4	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary, in the interest of environment and the same shall be complied with.	Additional conditions as stipulated by competent authority in the interest of environment shall be complied with.
5	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Compliance to all stipulated conditions is ensured.
6	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.	In case of change in project profile or implementation agency, a fresh application shall be made to MoEF & CC.
7	The project proponents 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 start of land development work.	The funding to this project is through internal accruals as approved by Tata Steel Board in August 2010. The project received final approval from MoEF & CC in August 2012 & CRZ clearance in March 2013. Construction activity in the CRZ area is yet to start which shall be intimated to the ministry prior to its start. We have only 55,000 TPA HCFeCr plant in Operation.
8	Odisha Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tahsildar's office for 30 days.	A Copy of clearance letter has been sent to the regional office -SPCB.
9	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.	All the stipulations under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006, including the amendments and rules made thereafter will be ensured from time to time.

Sl.	Condition	Compliance Status
10	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	All other statutory clearances will be obtained from the respective competent authorities before construction/operation as applicable.
11	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhubaneswar.	<ul style="list-style-type: none"> Grant of CRZ clearance has been advertised on 23.03.2013 in two local newspapers namely SAMBAD in Odia language (page no. 13) and The New Indian Express in English language (page no. 3) Advertisement details have been submitted to the MoEF Eastern Regional Office at Bhubaneswar vide letter no. PG-Env/C-01/01/13 dated 01.04.13 & to the MS, OSPCB Bhubaneswar vide letter no. PG-Env/C-01/02/13 dated 02.04.13 and also with the first six monthly CRZ compliance report submitted to the ministry on 29th Nov 2013.
12	This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.	As applicable.
13	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Not applicable.
14	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website	<ul style="list-style-type: none"> Last six-monthly compliance reports have been uploaded to the company's website www.tatasteel.com.
15	A copy of the clearance letter shall be sent by the proponent to concern Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	<p>Copy of the clearance letter has been submitted on 25.11.2013 to the concerned Panchayat, Zilla Parishad, Municipal Corporation etc.</p> <p>Moreover, CRZ clearance letter has been uploaded on the Tata Steel website, www.tatasteel.com.</p>

Sl.	Condition	Compliance Status
16	The proponent shall upload the status of compliance of the stipulated Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB	<ul style="list-style-type: none"> Last six-monthly compliance reports have been sent to the regional office of MoEF Bhubaneswar and SPCB Bhubaneswar and have also been uploaded to the company's website www.tatasteel.com.
17	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Last Six-monthly compliance reports including the results of monitored data was submitted in 29th May 2024 to the Regional Office of MoEF and OSPB in hard copy as well as soft copy through e-mail.
18	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 Clearance conditions and' shall also be sent to the respective Regional Office of MoEF by e-mail.	The environmental statement has been submitted every year and the same has been uploaded on company's website www.tatasteel.com .

F. No. 11-63/2012-IA.III
Government of India
Ministry of Environment & Forests
(IA Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003.

Dated: 18th March, 2013

To,
Head Projects,
Rebar Mill & Ferro Alloy Plant,
Tata Steel Ltd.,
2-B, Fortune Towers, Chandrashekharapur,
Bhubaneswar, Odisha - 751 023

Subject: CRZ Clearance for sea water intake and brine discharge from
1.2 MGD desalination plant for 400000 TPA Rebar Mill &
55.000 TPA Ferro Chrome Plant at Gopalpur Ganjam District,
Odisha by M/s Tata Steel Ltd. - Reg.

This has reference to letter No: EE-5/2012 10830/F&E, Bhubaneswar dated 16.06.2012 and your letter dated 18.11.2012 seeking prior CRZ Clearance for the above project under the Coastal Regulation Zone (CRZ) Notification, 2011. The proposal has been appraised as per prescribed procedure in the light of provisions under the Coastal Regulation Zone Notification, 2011 on the basis of the mandatory documents enclosed with the application viz., the Questionnaire recommendation of the State Coastal Zone Management Authority, EIA, EMP and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 19th - 21st September, 2012 and 28th - 29th January, 2013.

2. It is interalia, noted that the proposal involves construction of sea water intake and brine discharge from 1.2 MGD desalination plant for 400,000 TPA Rebar Mill & 55,000 TPA Ferro Chrome Plant at Gopalpur Ganjam District proposed by M/s Tata Steel Ltd. As per Tata Steel, this intend to put up a 400,000 TPA Rebar Mill and 55,000 TPA Ferro-chrome Plant in Chatrapur tehsil of Ganjam District in Odisha. As there is no dependable surface water source in the near vicinity of the site, Tata Steel had planned to put up a sea water desalination plant to meet make make-up water requirement for Plant operations. Ultimate water requirement is envisaged at 40 MGD of desalinated water. The Rebar Mill, Ferro Chrome Plant and current 1.2 MGD capacity Desalination Plant are in non-CRZ area. Sea Water Intake, Brine Discharge Outfall, Pipelines, Sump & Pump House, etc are coming under CRZ. The proposal envisages intake Volume, 568 Cum/hr (Initial Phase), 28406 cum/hr (Final phase), Brine Discharge: 341 cum/hr (Initial Phase), 20831 cum/hr (Final Phase), Intake/Discharge:

Intake & Outfall (multiple port diffusers) are located at 1000 m inside sea at 12 m water depth. Intake & Outfall are 600 m apart. 1000 m long pipelines are buried 2 m below seabed. Seawater sump and pump house beyond 200 m distance from HTL in an area of 40,000 sq m (*in CRZ III*), Pipelines for sea water intake and outfall covering in CRZ I – 300m, in CRZ III – 300 m and in CRZ IV – 1000 m, etc. Total cost of the project is Rs. 800 crores.

3. M/s National Institute of Oceanography (NIO) demarcated HTL, LTL and CRZ boundary lines at project site. Proponent assessed the marine aspects, in which the seawater quality, tidal waves and current data, bathymetry and salinity dispersion of brine discharge for the final phase have been studied.

4. Public hearing for the Main Plant was conducted on 20th September 2011. Odisha State Pollution Control Board granted 'Consent to Establish' for the project in January 2012. MoEF granted Environmental Clearance to the project on 14th August 2012.

5. The Odisha Coastal Zone Management Authority (OCZMA) considered the project in its meeting held on 08.05.2012 and recommended vide letter no. EE-5/2012 10830/F&E, Bhubaneswar dated 16th June, 2012.

6. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of CRZ Clearance for the project. Accordingly, the Ministry hereby accord necessary CRZ Clearance for the above project as per the provisions of Coastal Regulation Zone Notification, 2011, subject to strict compliance of the terms and conditions as follows:

7. SPECIFIC CONDITIONS:

- (i) Though the sumps and pump house are located beyond CRZ area, in view of its proximity to Sea, necessary prior permission shall be obtained for construction of sump from the competent Authority as applicable. Copy of the clearance shall be submitted to the Regional Office, MoEF prior to the commencement of the work.
- (ii) Screens and trash bars shall be provided to avoid entry of fishes and fish larvae in to the system.
- (iii) The outfall shall be at 1 km from shore at 12 m CD.
- (iv) All the recommendations of the CZMA shall be followed.
- (v) There shall be no disturbance to the sand dunes
- (vi) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each

mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.

- (vii) Periodic monitoring of coastal water shall be carried out at outfall location.
- (viii) No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (ix) The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.
- (x) The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.

8. GENERAL CONDITIONS :

- (i) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.
- (ii) Full support shall be extended to the officers of this Ministry/Regional Office at Bhubaneswar by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
- (iii) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhubaneswar regarding the implementation of the stipulated conditions.
- (iv) Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (v) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
- (vi) In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.

- (vii) The project proponents 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 start of land development work.
- (viii) Odisha Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.

9. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.

10. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

11. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhubaneswar.

12. This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

13. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

14. Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.

15. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

16. The proponent shall upload the status of compliance of the stipulated Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

17. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

18. 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 Clearance conditions and shall also be sent to the respective Regional Office of MoEF by e-mail.

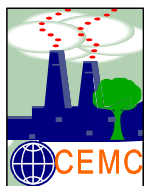


(Lalit Kapur)
Director (IA-III)

Copy to:

- (1) The Secretary, Department of Environment, Government of Orissa, Secretariat, Bhubaneswar-751023.
- (2) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
- (3) The Member Secretary, Orissa State Pollution Control Board, Bhubaneswar-751023
- (4) The CCF, Regional Office, Ministry of Environment & Forests RO (EZ), A/3, Chandrasekharapur, Bhubaneswar - 751023
- (5) IA - Division, Monitoring Cell, MOEF, New Delhi - 110003.
- (6) Guard file.

(Lalit Kapur)
Director (IA-III)



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Ref: CEMC-27112024St

Date: 27.11.2024

SIX MONTHLY COMPLIANCE REPORT APR-2024 TO SEPT-2024

STATIONARY EMISSION MONITORING REPORT

1. Name of Industry : M/s TATA STEEL LTD, (Ferro Alloys Plant), Gopalpur
2. Monitoring Instrument : Vayubodhan Stach Sampler VSS 2

Stack Attached to GCP-I								
Parameters	Prescribed Standard as per CTO	APR-2024	MAY-2024	JUN-2024	JUL-2024	AUG-2024	SEPT-2024	Average
Stack Temperature K	--	358	363	371	359	366	371	364.67
Velocity of Flue Gas m/sec	--	12.6	13.4	14.8	12.6	13.6	12.5	13.25
Concentration of Particulate Matter as PM mg/Nm ³	50	37.4	35.8	34.6	31.8	37.8	35.8	35.53
Sulphur dioxide as SO ₂ mg/Nm ³	--	31.2	32.6	27.1	29.2	29.2	32.6	30.32
Oxides of Nitrogen as NO _x mg/Nm ³	--	26.6	26.4	20.2	32.8	22.4	26.4	25.8

Stack Attached to GCP-II								
Parameters	Prescribed Standard as per CTO	APR-2024	MAY-2024	JUN-2024	JUL-2024	AUG-2024	SEPT-2024	Average
Stack Temperature K	--	373	365	387	360	383	377	374.17
Velocity of Flue Gas m/sec	--	11.4	11.2	12.15	10.62	13.1	12.6	11.85
Concentration of Particulate Matter as PM mg/Nm ³	50	38.8	36.4	38.2	36.4	39.1	36.4	37.55
Sulphur dioxide as SO ₂ mg/Nm ³	--	35.6	41.2	27	28.6	28.4	41.2	33.67
Oxides of Nitrogen as NO _x mg/Nm ³	--	31.4	30.2	34.4	33.6	36.2	30.2	32.67


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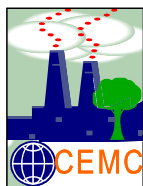
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Ref: CEMC-27112024A1

Date: 27.11.2024

SIX MONTHLY COMPLIANCE REPORT APR-2024 TO SEPT-2024 AAQ MONITORING REPORT FOR

1. Name of Industry	:	M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
2. Sampling Location	:	AAQMS-1 : MRSS Building Roof
3. Monitoring Instruments	:	RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor, VOC Sampler.
4. Sample collected by	:	CEMCPL Representative

Date	PARAMETERS											
	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)	O ₃ (µg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
APR-24	73.74	38.38	13.48	17.10	0.58	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MAY-24	72.46	36.76	12.89	17.11	0.57	BDL	BDL	BDL	BDL	BDL	BDL	BDL
JUN-24	66.51	32.98	12	16.16	0.39	BDL	BDL	BDL	BDL	BDL	BDL	BDL
JUL-24	62.46	30.76	8.89	13.11	0.37	BDL	BDL	BDL	BDL	BDL	BDL	BDL
AUG-24	61.3	31.36	9.81	14.1	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEPT-24	63.60	33.16	10.83	14.86	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	66.68	33.90	11.32	15.41	0.48	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	4	180	400	5	1	20	1	6
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indophenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂<4 µg/m³, NO_x<6 µg/m³, O₃<4 µg/m³, CO<0.1 mg/m³, NH₃<20 µg/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Ni<2.5 ng/m³, Pb<0.02 µg/m³, As <1 ng/m³.


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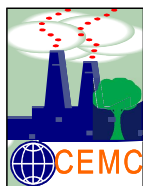
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Ref: CEMC-27112024A2

Date: 27.11.2024

SIX MONTHLY COMPLIANCE REPORT APR-2024 TO SEPT-2024 AAQ MONITORING REPORT FOR

1. Name of Industry	:	M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
2. Sampling Location	:	AAQMS-2 : LBSS Building Roof
3. Monitoring Instruments	:	RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor, VOC Sampler.
4. Sample collected by	:	CEMCPL Representative

Date	PARAMETERS											
	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)	O ₃ (µg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
APR-24	65.50	35.79	12.73	16.20	0.54	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MAY-24	64.71	32.43	10.8	15.52	0.51	BDL	BDL	BDL	BDL	BDL	BDL	BDL
JUN-24	62.58	33.01	10.43	15.64	0.37	BDL	BDL	BDL	BDL	BDL	BDL	BDL
JUL-24	54.71	28.05	8.73	12.65	0.22	BDL	BDL	BDL	BDL	BDL	BDL	BDL
AUG-24	53.73	27.54	<4	<9	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEPT-24	59.93	32.34	<4	<9	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	60.19	31.53	10.67	15.00	0.41	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	4	180	400	5	1	20	1	6
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indophenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂<4 µg/m³, NO_x<6 µg/m³, O₃<4 µg/m³, CO<0.1 mg/m³, NH₃<20 µg/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Ni<2.5 ng/m³, Pb<0.02 µg/m³, As < 1 ng/m³.


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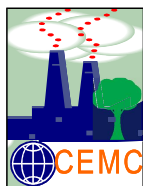


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Ref: CEMC-27112024A3

Date: 27.11.2024

SIX MONTHLY COMPLIANCE REPORT APR-2024 TO SEPT-2024 AAQ MONITORING REPORT FOR

1. Name of Industry	:	M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
2. Sampling Location	:	AAQMS-3 : Canteen Building Roof
3. Monitoring Instruments	:	RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor, VOC Sampler.
4. Sample collected by	:	CEMCPL Representative

Date	PARAMETERS											
	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)	O ₃ (µg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
APR-24	63.80	33.75	10.39	12.95	0.50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MAY-24	66.53	33.94	10.99	14.95	0.44	BDL	BDL	BDL	BDL	BDL	BDL	BDL
JUN-24	61.74	31.58	11.2	15.48	0.45	BDL	BDL	BDL	BDL	BDL	BDL	BDL
JUL-24	56.53	27.94	6.99	10.95	0.24	BDL	BDL	BDL	BDL	BDL	BDL	BDL
AUG-24	51.65	26.4	<4	<9	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEPT-24	53.85	28.30	<4	<9	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	59.02	30.32	9.89	13.58	0.41	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	4	180	400	5	1	20	1	6
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indophenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂<4 µg/m³, NO_x<6 µg/m³, O₃<4 µg/m³, CO<0.1 mg/m³, NH₃<20 µg/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Ni<2.5 ng/m³, Pb<0.02 µg/m³, As <1 ng/m³.


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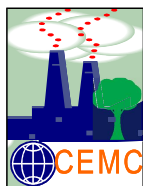
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Ref: CEMC-27112024A4

Date: 27.11.2024

SIX MONTHLY COMPLIANCE REPORT APR-2024 TO SEPT-2024 AAQ MONITORING REPORT FOR

1. Name of Industry	:	M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
2. Sampling Location	:	AAQMS-4 : ETP Building Roof
3. Monitoring Instruments	:	RDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor, VOC Sampler.
4. Sample collected by	:	CEMCPL Representative

Date	PARAMETERS											
	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)	O ₃ (µg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
APR-24	64.53	34.13	11.03	14.98	0.47	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MAY-24	65.58	33.38	10.43	14.65	0.51	BDL	BDL	BDL	BDL	BDL	BDL	BDL
JUN-24	62.06	32.38	10.19	14.65	0.44	BDL	BDL	BDL	BDL	BDL	BDL	BDL
JUL-24	55.58	27.38	6.43	10.65	0.31	BDL	BDL	BDL	BDL	BDL	BDL	BDL
AUG-24	59.56	30.74	8.35	12.78	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEPT-24	62.46	33.84	9.29	13.47	<0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	61.63	31.97	9.29	13.53	0.43	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	4	180	400	5	1	20	1	6
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indophenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂<4 µg/m³, NO_x<6 µg/m³, O₃<4 µg/m³, CO<0.1 mg/m³, NH₃<20 µg/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Ni<2.5 ng/m³, Pb<0.02 µg/m³, As <1 ng/m³.


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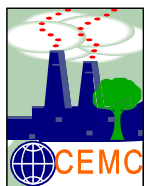
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Ref: CEMC-27112024EW1

Date: 27.11.2024

EFFLUENT WATER QUALITY MONITORING TEST REPORT

Name & Address of the Client : M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
Sampling Period : APR-2024 to SEPT-2024
Sampling by : CEMCPL Representative
Sample Location : Stage-I – Collection Tank
Sample Quantity : 2.0 Ltrs

ANALYSIS RESULT

Parameters	Month						Maximum	Minimum	Average	Std deviation
	APR-24	MAY-24	JUN-24	JUL-24	AUG-24	SEPT-24				
Colour	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Odour	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless
Total Suspended Solids	38.2	28.8	29.4	38.4	31.2	32.6	38.4	28.8	33.10	4.25
Temperature	32.3	33.8	29.2	28.6	28	34.2	34.2	28	31.02	2.75
pH Value @ 25°C	7.11	8.11	7.64	7.68	7.82	8	8.11	7.11	7.73	0.35
Total Residual Chlorine	0.42	0.6	0.4	0.3	0.4	0.4	0.6	0.3	0.42	0.10
Copper (as Cu)	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Total Chromium (as Cr)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoride (as F)	0.44	0.52	0.38	0.32	0.48	0.48	0.52	0.32	0.44	0.07
Mercury (as Hg)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium (as Cd)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium (as Se)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Arsenic (as As)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cyanide (as CN)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead (as Pb)	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Zinc (as Zn)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Hexa Valent Chromium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dissolved Oxygen	5	5.2	5.1	5.3	5	5	5.3	5	5.10	0.13
Oil & Grease	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
B.O.D for 3 days @ 27°C	7.2	7.4	16	10	16.6	7.6	16.6	7.2	10.80	4.38
Chemical Oxygen Demand	30	50	52	40	60	40	60	30	45.33	10.71
Total Kjeldahl nitrogen as N	6.3	7	9.2	8.8	6.2	6.2	9.2	6.2	7.28	1.37
Free Ammonia	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ammonical Nitrogen	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dissolved Phosphate as PO ₄	0.32	0.38	0.52	0.46	0.32	0.32	0.52	0.32	0.39	0.09
Nickel (as Ni)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Particle size of SS	<850	<850	<850	<850	<850	<850	<850	<850	<850	<850
Bioassay Test	92%	92%	94%	95%	92%	92%	0.95	0.92	0.93	0.01
Vanadium (as V)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate (as NO ₃)	5.3	7.2	7.8	5.2	6.8	6.8	7.8	5.2	6.52	1.05
Sulphide (as S)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

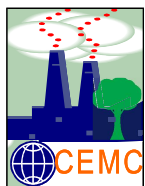
Environmental Studies (EIA & EMP), Monitoring, Forest Diversion Planning, DPR, Wildlife Management Plan, Hazardous & Safety Studies, RS& GIS, Baseline Survey, Hydrological & Geological Studies, Socio-economic Studies, DGPS & ETS Survey.

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Manganese (as Mn)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Iron (as Fe)	0.38	0.38	0.38	0.42	0.3	0.3	0.42	0.3	0.36	0.05
Phenolic Compounds (as C ₆ H ₅ OH)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001


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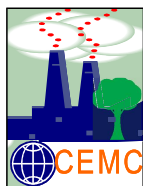


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Ref: CEMC-27112024EW2

Date: 27.11.2024

EFFLUENT WATER QUALITY MONITORING TEST REPORT

Name & Address of the Client : M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
Sampling Period : APR-2024 to SEPT-2024
Sampling by : CEMCPL Representative
Sample Location : Stage-II- Clarifier Flocculator
Sample Quantity : 2.0 Ltrs

ANALYSIS RESULT

Parameters	Month						Maximum	Minimum	Average	Std deviation
	APR-24	MAY-24	JUN-24	JUL-24	AUG-24	SEPT-24				
Colour	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Odour	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless
Total Suspended Solids	20.2	16.5	13.5	18.4	16	16.8	20.2	13.5	16.90	2.27
Temperature	38.6	34.6	31.1	29.8	32.8	32.8	38.6	29.8	33.28	3.08
pH Value @ 25°C	7.3	8.98	8.06	7.69	8.07	8.45	8.98	7.3	8.09	0.58
Total Residual Chlorine	0.51	0.41	0.26	0.2	0.4	0.4	0.51	0.2	0.36	0.11
Copper (as Cu)	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Total Chromium (as Cr)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoride (as F)	0.22	0.36	0.38	0.28	0.26	0.26	0.38	0.22	0.29	0.06
Mercury (as Hg)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium (as Cd)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium (as Se)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Arsenic (as As)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cyanide (as CN)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead (as Pb)	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Zinc (as Zn)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Hexa Valent Chromium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dissolved Oxygen	5.3	5.2	5.4	5.6	5.8	5.6	5.8	5.2	5.48	0.22
Oil & Grease	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
B.O.D for 3 days @ 27°C	6	6	6.6	18	5.2	6.2	18	5.2	8.00	4.92
Chemical Oxygen Demand	22	30	50	80	20	20	80	20	37.00	23.96
Total Kjeldahl nitrogen as N	4.6	5.2	6.1	9.4	4.8	4.8	9.4	4.6	5.82	1.84
Free Ammonia	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ammonical Nitrogen	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dissolved Phosphate as PO ₄	0.29	0.32	0.38	0.56	0.24	0.24	0.56	0.24	0.34	0.12
Nickel (as Ni)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Particle size of SS	<850	<850	<850	<850	<850	<850	<850	<850	<850	<850
Bioassay Test	93%	94%	91%	92%	93%	93%	0.94	0.91	0.93	0.01

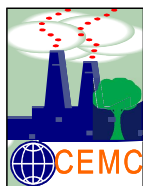
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Vanadium (as V)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate (as NO ₃)	5.9	6.3	5.2	6.1	6.2	6.8	6.8	5.2	6.08	0.53
Sulphide (as S)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Manganese (as Mn)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Iron (as Fe)	0.28	0.27	0.31	0.47	0.22	0.24	0.47	0.22	0.30	0.09
Phenolic Compounds (as C ₆ H ₅ OH)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001


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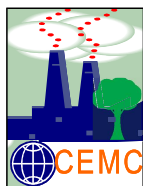


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Ref: CEMC-27112024EW3

Date: 27.11.2024

EFFLUENT WATER QUALITY MONITORING TEST REPORT

Name & Address of the Client : M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
Sampling Period : APR-2024 to SEPT-2024
Sampling by : CEMCPL Representative
Sample Location : Stage-III- Treated Water
Sample Quantity : 2.0 Ltrs

ANALYSIS RESULT

Parameters	Month						Maximum	Minimum	Average	Std deviation
	APR-24	MAY-24	JUN-24	JUL-24	AUG-24	SEPT-24				
Colour	5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Odour	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless
Total Suspended Solids	15.4	12.8	15.6	26.4	16.4	15	26.4	12.8	16.93	4.79
Temperature	30.4	32.1	28.8	27.6	28.6	30.4	32.1	27.6	29.65	1.62
pH Value @ 25°C	7.32	7.93	8.04	7.83	7.92	8.3	8.3	7.32	7.89	0.32
Total Residual Chlorine	0.31	0.5	0.2	0.2	0.24	0.3	0.5	0.2	0.29	0.11
Copper (as Cu)	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Total Chromium (as Cr)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoride (as F)	0.26	0.28	0.24	0.31	0.2	0.22	0.31	0.2	0.25	0.04
Mercury (as Hg)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium (as Cd)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium (as Se)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Arsenic (as As)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cyanide (as CN)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead (as Pb)	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Zinc (as Zn)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Hexa Valent Chromium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dissolved Oxygen	5.2	5.1	4.5	4.8	4.7	5	5.2	4.5	4.88	0.26
Oil & Grease	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
B.O.D for 3 days @ 27°C	20	5.2	20	22	22	15	22	5.2	17.37	6.49
Chemical Oxygen Demand	70	20	50	60	56	180	180	20	72.67	55.23
Total Kjeldahl nitrogen as N	5.6	3.8	4.3	5.8	4.1	3.6	5.8	3.6	4.53	0.94
Free Ammonia	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ammonical Nitrogen	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dissolved Phosphate as PO ₄	0.16	0.22	0.4	0.51	0.4	0.18	0.51	0.16	0.31	0.14
Nickel (as Ni)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Particle size of SS	<850	<850	<850	<850	<850	<850	<850	<850	<850	<850
Bioassay Test	95%	95%	95%	94%	95%	95%	0.95	0.94	0.95	0.00
Vanadium (as V)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate (as NO ₃)	5.1	4.4	5.1	4.6	5.4	4.8	5.4	4.4	4.90	0.37
Sulphide (as S)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Manganese (as Mn)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

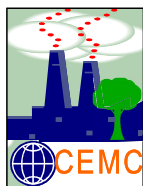
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Iron (as Fe)	0.19	0.14	0.16	0.26	0.13	0.12	0.26	0.12	0.17	0.05
Phenolic Compounds (as C ₆ H ₅ OH)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001


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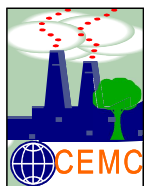


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Ref: CEMC-27112024SW1

Date: 27.11.2024

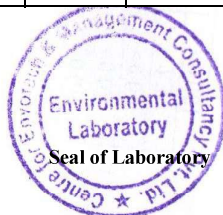
SURFACE WATER QUALITY MONITORING TEST REPORT

Name & Address of the Client : M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
Sampling Period : APR-2024 to SEPT-2024
Sampling by : CEMCPL Representative
Sample Location : Khara Nallah Upstream
Sample Quantity : 2.0 Ltrs

ANALYSIS RESULT

Parameters	Month						MAXI MUM	MINI MUM	AVER AGE	STD DEVIATI ON
	APR-24	MAY-24	JUN-24	JUL-24	AUG-24	SEPT-24				
Colour, Max.	<5	<5	<5	80	<5	<5	<5	<5	<5	<5
pH Value @ 25°C	7.16	8.23	7.88	7.72	8.31	8.44	Odou rless	Odou rless	Odou rless	Odourle ss
Iron as Fe, Max.	0.22	0.31	0.2	0.37	0.06	0.28	0.37	0.06	0.24	0.11
Chloride as Cl, Max.	21.9	26.9	24.9	17.37	29.7	23.9	29.7	17.37	24.11	4.24
Dissolved Solids, Max.	254	224	274	234.6	250	260	274	224	249.4 3	17.91
Dissolved Oxygen, Min.	6.2	5.6	4.7	5	6	6	6.2	4.7	5.58	0.61
BOD for 3 days@ 27 ⁰ C, Max.	<2	<2	<2	<2	<2	<2	<0.03	<0.03	<0.03	<0.03
Oil & Grease, Max.	ND	ND	ND	ND	ND	ND	<0.05	<0.05	<0.05	<0.05
Copper as Cu, Max.	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0	0	#DIV /0!	#DIV/0 !
Sulphate as SO ₄ , Max.	6.3	6.8	8.8	6.21	6	6	<0.00 1	<0.00 1	<0.00 1	<0.001
Nitrate as NO ₃ , Max.	3.6	5.4	4.6	2.1	2.4	5.8	<0.01	<0.01	<0.01	<0.01
Fluoride as F, Max.	0.14	0.14	0.19	0.06	0.37	0.16	<0.01	<0.01	<0.01	<0.01
Anionic detergent	ND	ND	ND	ND	ND	ND	<0.01	<0.01	<0.01	<0.01
Cadmium as Cd, Max.	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	ND	ND	ND	ND
Selenium as Se, Max.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.07	<0.07	<0.07	<0.07
Arsenic as As, Max.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05	<0.05	<0.05	<0.05
Cyanide as CN, Max.	ND	ND	ND	ND	ND	ND	<0.05	<0.05	<0.05	<0.05
Phenolic compound as C ₆ H ₅ OH, Max.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead as Pb, Max.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc as Zn, Max.	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Hexavalent Chromium as Cr ⁺⁶ Max.	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Coliform, Max.	44	25	21	40	27	36	44	21	32.17	9.15
Faecal Coliform	6	2	<2	<2	<2	2	6	2	3.33	2.31


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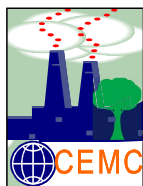
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Ref: CEMC-27112024SW2

Date: 27.11.2024

SURFACE WATER QUALITY MONITORING TEST REPORT

Name & Address of the Client : M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
Sampling Period : APR-2024 to SEPT-2024
Sampling by : CEMCPL Representative
Sample Location : Khara Nallah Downstream
Sample Quantity : 2.0 Ltrs

ANALYSIS RESULT

Parameters	Month						MAXI MUM	MINI MUM	AVERA GE	STD DEVIATI ON
	APR-24	MAY- 24	JUN-24	JUL-24	AUG-24	SEPT- 24				
Colour, Max.	<5	<5	<5	90	<5	<5	<5	<5	<5	<5
pH Value @ 25°C	7.44	7.41	7.5	7.45	7.35	7.31	7.5	7.31	7.41	0.07
Iron as Fe, Max.	0.19	0.16	0.17	0.97	0.97	0.18	0.97	0.16	0.44	0.41
Chloride as Cl, Max.	33.9	30.9.	29.9	27.79	23.8	32.9.	33.9	23.8	28.85	4.21
Dissolved Solids, Max.	252	218	223	262	223	233	262	218	235.1 7	17.88
Dissolved Oxygen, Min.	5.9	5.1	5.1	5.3	5.1	5.6	5.9	5.1	5.35	0.33
BOD for 3 days@ 27 ⁰ C, Max.	2.8	2.8	2.6	2.6	2.6	2.6	2.8	2.6	2.67	0.10
Oil & Grease, Max.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper as Cu, Max.	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Sulphate as SO ₄ , Max.	8.4	9.2	10.4	28.29	8.62	8.8	28.29	8.4	12.29	7.87
Nitrate as NO ₃ , Max.	4.6	6	6.4	21.4	12.97	5.8	21.4	4.6	9.53	6.53
Fluoride as F, Max.	0.46	0.44	0.42	0.26	0.3	0.41	0.46	0.26	0.38	0.08
Anionic detergent	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium as Cd, Max.	<0.003	<0.003	<0.003	<0.003	<0.003	<0.00 3	<0.003	<0.00 3	<0.003	<0.003
Selenium as Se, Max.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00 1	<0.001	<0.00 1	<0.001	<0.001
Arsenic as As, Max.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00 1	<0.001	<0.00 1	<0.001	<0.001
Cyanide as CN, Max.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenolic compound as C ₆ H ₅ OH, Max.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead as Pb, Max.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc as Zn, Max.	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

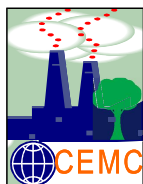
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Hexavalent Chromium as Cr ⁺⁶ Max.	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Coliform, Max.	156	120	144	360	51	170	360	51	166.8	103.51
Faecal Coliform	13	11	16	80	11	17	80	11	24.67	27.22


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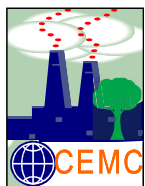


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Ref: CEMC-27112024SW3

Date: 27.11.2024

SURFACE WATER QUALITY MONITORING TEST REPORT

Name & Address of the Client : M/s. TATA Steel Ltd, (Ferro Alloys Plant), Gopalpur
Sampling Period : APR-2024 to SEPT-2024
Sampling by : CEMCPL Representative
Sample Location : Reservoir
Sample Quantity : 2.0 Ltrs

ANALYSIS RESULT

Parameters	Month						MAXI MUM	MINI MUM	AVERA GE	STD DEVIATI ON
	APR-24	MAY- 24	JUN-24	JUL-24	AUG-24	SEPT- 24				
Colour, Max.	5	5	10	85	10	5	85	5	20.00	31.94
pH Value @ 25°C	8.25	8.16	7.62	7.32	7.38	8.13	8.25	7.32	7.81	0.42
Iron as Fe, Max.	0.26	0.18	0.22	1.36	0.51	0.22	1.36	0.18	0.46	0.46
Chloride as Cl, Max.	31.9	41.9	39.9	20.8	21.8	39.9	41.9	20.8	32.70	9.48
Dissolved Solids, Max.	212	208	184	222.6	221	228	228	184	212.6 0	15.79
Dissolved Oxygen, Min.	5.9	5	5.4	5.6	4.9	4.9	5.9	4.9	5.28	0.42
BOD for 3 days@ 27 ⁰ C, Max.	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Oil & Grease, Max.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper as Cu, Max.	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Sulphate as SO ₄ , Max.	11.6	11.2	12.9	23.73	8.9	10.4	23.73	8.9	13.12	5.36
Nitrate as NO ₃ , Max.	4.9	8	8.1	27.52	13.26	7.4	27.52	4.9	11.53	8.29
Fluoride as F, Max.	0.36	0.41	0.23	0.05	0.18	0.34	0.41	0.05	0.26	0.13
Anionic detergent	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium as Cd, Max.	<0.003	<0.003	<0.003	<0.003	<0.003	<0.00 3	<0.003	<0.00 3	<0.003	<0.003
Selenium as Se, Max.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00 1	<0.001	<0.00 1	<0.001	<0.001
Arsenic as As, Max.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00 1	<0.001	<0.00 1	<0.001	<0.001
Cyanide as CN, Max.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenolic compound as C ₆ H ₅ OH, Max.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead as Pb, Max.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc as Zn, Max.	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

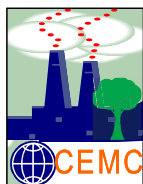
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Hexavalent Chromium as Cr ⁺⁶ , Max.	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Coliform, Max.	233	177	64	180	91	210	233	64	159.17	67.07
Faecal Coliform	34	14	4	50	17	21	50	4	23.33	16.32


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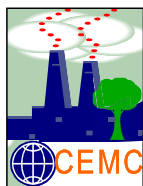


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Ref: CEMC-27112024N

Date: 27.11.2024

SIX MONTHLY COMPLIANCE REPORT APR-2024 TO SEPT-2024 NOISE LEVEL MONITORING REPORT SEPTEMBER-2024

Name & Address of the Client	: M/s. TATA Steel Mining Ltd, (Ferro Alloys Plant), Gopalpur
Instrument Used	: Noise Meter
Sample Collected By	: CEMCPL Representative

SL. No.	LOCATION	APR-24		MAY-24		JUN-24		JUL-24		AUG-24		SEPT-24		AVG	
		Noise Level in dB(A)		Noise Level in dB(A)		Noise Level in dB(A)		Noise Level in dB(A)		Noise Level in dB(A)		Noise Level in dB(A)		Noise Level in dB(A)	
		DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT
1.	MRSS	64.9	53.5	64.6	52.9	65.55	51.6	64.5	51.9	63.9	52.6	64.6	52.9	64.68	52.57
2	LBSS	70.6	65.4	69.2	65.3	67.35	62.2	69.1	61.8	69.9	65.6	69.2	65.3	69.23	64.27
3	Canteen	69.6	66.1	70.7	64.9	67.7	63.0	70.5	63.4	70.4	65.1	70.7	64.9	69.93	64.57
4	ETP	69.7	66.8	69.1	66.0	67.35	62.85	68.1	62.5	69.4	66.1	69.1	66.0	68.79	65.04
Ambient air Quality Standards in respect of Noise for Industrial Area														75	70
Note: No deviation from the AAQ standard in respect of Noise is observed and the values are with in the standard prescribed.															


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Annexure- A

Sl. No.	Activity	Impact	Duration of impact	Mitigation	Compliance
1	Trenching for intake and outfall pipelines	Trenching will disturb the sea bed resulting in loss of sea-grass beds and associated benthic communities.	Temporary	Use of good engineering tools for trenching and installation of the pipes.	The construction activities in CRZ area is yet to start. However, all the mitigation measures as proposed in EIA report will be ensured before start of the construction activity.
		Increased turbidity affecting the photosynthetic process of the water column.	Temporary	Controlled method of dredging with latest technology.	
		Suspended particles will affect the filter feeders and adult fish will migrate from the site of impact.	Temporary	To minimize the spread of suspended particles, silt screens may be deployed.	
		Boat movements and fishing activity will be restricted.	Temporary	Complete the operation within shortest duration.	
2	Laying of submarine pipelines	Boat movements and fishing activity will be restricted	Temporary	Laying operation may be done in shortest duration.	
				Barricading the water has to be avoided.	
				Install proper marker lights indicating if any obstructions.	
3	Seawater intake head	Entrapment of fishes and other organisms	Continuous	Installation of proper screens and trash bars to avoid entry of fishes and fish larvae.	
		Entrainment of smaller organisms such as fish larvae.			
4	Brine outfall	Increased salinity	Continuous	Faster dilution of moderately high salinity levels to ambient levels	
5	Coastal installation	-	-	All installations as per CRZ regulations	