



Member Secretary,
State Environmental Impact Assessment Authority (SEIAA), Odisha
Bhubaneswar – 751 023, Odisha

TSK/Env/C-05/ 12 /2023
30th May' 2023

Dear Sir,

Sub.: Six Monthly Compliance Report for Oct'22 to Mar'23, for Environmental Clearance for Residential Complex of Tata Steel at Kalinganagar Industrial Complex, Jajpur, Odisha.

Ref.: (i) EC Granted by SEIAA vide Letter No. SEIAA/ 4669 dated 17.08.2015
(ii) EC Extension granted by SEIAA vide File No. SIA/OR/MIS/271482/2022 dated 04.05.2023.

We enclose herewith Six-Monthly Compliance Report for the period from Oct'22 to Mar'23 for the conditions stipulated in Environmental Clearance on 17.08.2015 by SEIAA, Odisha for construction of Residential Complex of Tata Steel Plant located at Kalinganagar Industrial Complex, at Khurunti and Gadapur, Dist. Jajpur, Odisha for your kind considerations.

We trust the information furnished is in line with your requirement.

Thanking you,

Yours faithfully,

Raju Agrawal
Head, Environment, TSK

Encl. a/a

Copy to: The Addl. PCCF, Eastern Regional Office, MoEF&CC, BBSR for his kind perusal.
The Member Secretary, OSPCB Bhubaneswar
The Regional Officer, OSPCB Kalinganagar

TATA STEEL KALINGANAGAR

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TATA STEEL LIMITED

Construction of Residential Complex For Tata Steel Plant located at Kalinganagar Industrial Complex, at Khurunti and Gadapur, Dist- Jajpur, Odisha



Environment Compliance Report (Oct'2022 to Mar'2023)

**Environment Department
Tata Steel Limited
Kalinganagar Industrial Complex
Duburi- 755026
Dist- Jajpur, Odisha**

GENERAL CONDITIONS	STATUS AS ON 31.03.2023
<p>1. The Project Proponent shall comply with all the conditions stipulated in the building approval letter.</p>	<p>We are implementing the project as per the conditions stipulated in the building approval letter vide KNDA letter no: BP/115/18(Revised) 1124/KNDA dated 15.12.2018 such as:</p> <ol style="list-style-type: none"> 1. Drawing confirming to KNDA (Planning and building Standards) regulation 2017, in terms of all building parameters including parking and plantation norms. 2. The land over which construction was proposed is accessible by an approve means access of 35 mtr in width. 3. Parking space measuring 16260.73 sqm has been handed over for occupancy against 40463m2 as per the approved KNDA plan. 4. Occupancy certificate for Building D wing A, building E wing A&B, Building F wing A, B, and C has been obtained from KNDA prior to occupancy of the building. 5. NOC obtained from Airport Authority of India.
<p>2. The applicant (Project proponent) will take necessary measures for preventions, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned by them in form-1, form-1A, and Environment Management plan (EMP) in compliance with the prescribed statutory norms and standards.</p>	<p>Measures are being taken for preventions, control and mitigation of Air Pollution, Water Pollution, Noise Pollution and Land Pollution including solid waste management as mentioned in form-1, form- 1A, and Environment Management plan (EMP) in compliance with the prescribed statutory norms and standards.</p> <ol style="list-style-type: none"> 1. For Air pollution control, regular Water Sprinkling is being done, maintained covered sand quarries. Cement for construction activities being brought to the site by closed cement bulker truck. Continuous Ambient Air Quality Monitoring

GENERAL CONDITIONS		STATUS AS ON 31.03.2023
		<p>Station has been installed at Residential complex to monitor 24x7 Air Quality.</p> <ol style="list-style-type: none"> 2. For Water Pollution Control - Rainwater Harvesting has been adopted (40 nos recharge pits) and 1000KLD STP is in operation 3. The solid waste generated is properly collected, segregated and disposed on regular frequency. Wet garbage is converted into manure through Organic waste converters (2 Nos each having input capacity of 200 Kg/day). <p>More than 20% of the area has been developed as green belt.</p>
3.	The applicant will take statutory clearance/ approval/ permissions from the concerned authorities in respect of the project as and when required.	<p>Statutory clearance/ approval/ permissions from the concerned authorities has been obtained in respect of the project as and when required, which includes:</p> <ul style="list-style-type: none"> • Approval from Kalinganagar Development Authority (KNDA). vide KNDA letter no: BP/115/18(Revised) 1124/KNDA dated 15.12.2018. • NOC from Director General of Civil Aviation for building height. Vide AAI NOC ID No- BHUB/EAST/B/110215/213874. • NOC from Fire Department, Odisha. Vide Certificate no- 19/FPW dated 18.08.2021. • CTE and CTO from Odisha State Pollution Control Board. CTO: OSPCB vide Letter No. 4196 dtd.04.04.2018 CTE: OSPCB vide. letter No. 17242 dtd. 31/10/2015 <p>Occupancy certificate from KNDA. Vide KNDA letter no: BP-161/21 & 91/22- (Part-IV) 1199/KNDA dated 11.07.2022.</p>

GENERAL CONDITIONS	STATUS AS ON 31.03.2023
4. The applicant will submit half-yearly compliance report on post environmental monitoring in respect of the stipulated term and conditions in the environmental clearance to the State Environmental Impact Assessment Authority (SEIAA), Odisha, SPCB & Regional Office of the Ministry of Environmental & Forest, Odisha, on 1 st June and 1 st December of each calendar year.	We are submitting the six-monthly compliance report in stipulated time. Last Six-monthly compliance reports for the period Apr'22 to Sep'22 was submitted to MoEF&CC/ OSPCB Regional Office vide letter No. TSK/Env/C-05/55/2022 dated 24.11.2022.
5. The project proponent shall obtain periodic Occupancy Renewal Certificate from the Competent Authority at an interval of 3 to 5 years as per the provisions of National Building Code (NBC) 2005.	We have obtained the Occupancy certificate from Kalinganagar Development Authority on 14/03/2019, 29/02/2020, 26.04.2022 and 11.07.2022.
6. The proponent shall comply to all the conditions stipulated by the Fire Prevention Officer, Odisha.	Conditions being complied as stipulated in the Fire Safety Certificates issued on 31/01/19, 30/11/19, 12/01/21 and 18/08/21 by the Chief Fire officer, Fire prevention wing.
7. The Applicant will adopt the prescribed norms, and standards provided in the national Building Code of India 2005.	<p>Being complied.</p> <p>Norms including the followings.</p> <ol style="list-style-type: none"> 1. Width of fire tender route are provided with 6mtr wide road. 2. Building setbacks are being maintained in line with the NBC 2005. 3. Lifts are provided in each tower of the building. 4. Floor Area Ratio (FAR) has been maintained 0.59. 5. Firefighting systems are in placed in each tower according to the building height. 6. Design data base are calculated as per NBC 2005 are being followed.
8. Consider the peak water consumption of the occupants, the design of the water supply system and sewage disposal system of the project should be based on the provisions of the water consumption.	Water supply system and sewage treatment system of the project is based on the peak water consumption of the occupants. Water consumption will be 650 KLD and effluent discharge at full capacity will be 1000 KLD. Present water consumption is 300-350 KLD.

GENERAL CONDITIONS	STATUS AS ON 31.03.2023									
<p>9. The Project Proponent should ensure advertising in at least two local newspapers widely circulated in the region, one of which shall be in vernacular language informing the public that the project has been accorded environment clearance and copies of clearance letters are available with SEIAA, Odisha and the State Pollution Control Board (SPCB) And may also be seen on the website of the board. The Advertisement shall be made within 7 days from the date of issue of the environmental clearance & a copy of the same should be forwarded to the regional office of MoEF, Bhubaneswar.</p>	<p>Details of Newspaper advertisement are as below: -</p> <table border="1" data-bbox="850 365 1326 577"> <thead> <tr> <th><u>Newspaper</u></th> <th><u>Language</u></th> <th><u>Date</u></th> </tr> </thead> <tbody> <tr> <td>New Indian Express</td> <td>English</td> <td>15.09.15</td> </tr> <tr> <td>Samay</td> <td>Odia</td> <td>15.09.15</td> </tr> </tbody> </table> <p>Copy of the advertisement was submitted to SEIAA/MoEF/OSPCB vide our letter KPO/Env/C-08/61/2015 dated 18.09.2015. Please refer Annexure-1.</p>	<u>Newspaper</u>	<u>Language</u>	<u>Date</u>	New Indian Express	English	15.09.15	Samay	Odia	15.09.15
<u>Newspaper</u>	<u>Language</u>	<u>Date</u>								
New Indian Express	English	15.09.15								
Samay	Odia	15.09.15								
<p>10. A copy of the clearance letter shall be sent by the proponent to concerned panchayat, Zila 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 be on the Website of the Company by the proponent.</p>	<p>Copy of EC was submitted to Sarpanch-Sarangapur Gram Panchayat and Zila Parishad vide our letter no KPO/Env/C-08/62/ 2015 dated 18.09.2015.</p> <p>Copy of EC was submitted to Kalinganagar Development Authority (KNDA) on 10.09.2015 vide letter KPO/CS/0135/15.</p>									
<p>11. The Proponent Shall upload the status of compliance of the stipulated environmental clearance conditions, including result of monitoring data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MoEF, SEIAA, Odisha, the respective zonal Office of CPCB and SPCB.</p>	<p>Status of compliance of the stipulated environmental clearance conditions, is available in company's website https://www.tatasteel.com/corporate/our-organisation/environment/environment-compliance-reports/</p> <p>We are submitting the six-monthly compliance report in stipulated time.</p> <p>Last Six-monthly compliance reports for the period Apr'22 to Sep'23 was submitted to the Regional Office of MoEF&CC, SEIAA, Odisha, the respective zonal Office of CPCB and SPCB in soft copy on 24.11.2022. Environmental Monitoring Data for Period Oct'22 to Mar'23 is attached as Annexure-2.</p>									

GENERAL CONDITIONS		STATUS AS ON 31.03.2023
12.	The Environment statement for each financial year ending 31 st 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 Environmental (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the Status of compliance of environmental clearance conditions and shall also be sent to the respective regional Officers of the Ministry by e-mail.	Both, Environment Statement and Status of Compliance of EC conditions are available on company's website. https://www.tatasteel.com/corporate/our-organisation/environment/environment-compliance-reports/
13.	Any appeal against this environmental clearance shall lie with the Hon'ble Nation Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal act, 2010.	Noted.

A. CONSTRUCTION PHASE

SPECIAL CONDITIONS		STATUS AS ON 31.03.2023
1.	No ground water shall be extracted for the project work at any stage during the construction phase. If ground water will be used during construction phase, they shall obtain permission from the Water Resource Department.	Present water requirement of about 300-350 KLD for the said residential complex is being met from our Tata Steel Plant. For which we have agreement with Jaraka Irrigation Department, Dept. of water resource, Govt. of Odisha and water allocation letter granted by dept. of water resource, Govt. of Odisha vide water resource department's letter No 30911 dtd 03.12.2021.
2.	Provision shall be made for the housing of construction labourers within site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilet, mobile STP 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 project.	Source of laborers is mainly from local area. No temporary housing is provided for construction laborers in the project site. First aid and medical facilities are available close to the site.
3.	A First Aid room will be provided in the project site both during construction and operation of the project.	First Aid room is provided at the complex.

	SPECIAL CONDITIONS	STATUS AS ON 31.03.2023
4.	All the top soil excavated during construction activities should be stored separately for use in land filling, horticulture/landscape development within the project site.	Topsoil excavated during construction is used for landscape development and plantation.
5.	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities will be disposed off taking the necessary precaution for general safety and health aspects of people only in approved site with the approval of competent authority.	Proper storage and disposal is done to avoid any adverse effect to neighborhood. All precautions are taken for general safety and health.
6.	Construction spoils, including bituminous material and other Hazardous Materials should not be allow to contaminate watercourses, ground water and dump sites by following safe dumping / disposal practice as per statutory rules and norms with necessary approval of Odisha state Pollution Control Board.	Construction spoils including bituminous are stacked to avoid any contamination to the watercourses, ground water and dump sites. The ground water quality monitoring data enclosed for the period October 2022 to March 2023 and the monitored values are within norms.
7.	The fuel for diesel generator sets to be used during construction phase shall be use low sulfur diesel fuel and should conform to Environment (Protection) rules 1986 prescribed for air emission and noise standard.	High Speed Diesel fuel (HSD) is used for DGs during construction phase. DG sets will be conforming to Environment (Protection) rules 1986 prescribed for air emission and noise standard.
8.	The Diesel required for operating DG sets shall be stored in underground tanks and if, required, clearance from Chief Controller of Explosive shall be taken.	Diesel is sourced from nearby dispensing units, and we do not envisage a storage capacity that requires clearance from CCOE.
9.	Vehicles used for bringing construction materials to the sites should be in good conditions and should have a pollution check certificate, covered and conform to statutory air and noise standards and should be operated only during non-peak hours of days.	Only vehicles with valid "Pollution Under Control" certificate can enter the site. Vehicles are checked periodically.
10.	Ambient noise level should conform to residential standards both during day and night. Incremental pollution loads on ambient air and noise quality should be closed monitored during construction phase. Adequate Measures should be taken to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ OPCB.	To reduce noise level, movement of construction vehicles is carried out during non-peak hours and construction machinery with lesser noise and vibration parameters are used. Regular dust suppression, preventive vehicle maintenance, etc. are ensured to control of dust and noise. Noise level monitoring data has been furnished with the submitted six monthly

	SPECIAL CONDITIONS	STATUS AS ON 31.03.2023
		compliance and the data is within the norms.
11.	Fly ash bricks should be used as building material in the construction as per the provisions to fly ash notification of September 1999 and as amended thereafter.	Fly ash bricks sourced from nearby areas, are being used as building material. Total 520286 nos of fly ash bricks have been used for construction, till date.
12.	Ready mixed concrete should be used in building construction.	Ready mixed concrete is being used in building Construction. Till date 109463 cum of ready-mix concrete has been used for construction purpose.
13.	Storm water control and its reuse should be as per CGWB and BIS Standard for these applications.	Pond has been constructed for collection of storm water and pond water is used for horticulture, gardening and water sprinkling.
14.	Water demand during construction should be optimized by adopting best practices without compromising quality. It should be brought to the site by tanker.	Water conservation measures adopted to optimize water demand during construction phase. Ready mix concrete has been used to optimize water demand during construction phase.
15.	Separation of grey and black water supplies and collection should be done by the dual plumbing line. Grey and Black water should be adequately treated separately so as to conform to the prescribed standard before recycling / reuse.	Dual plumbing has been provided and has been made operational for units which are in operation.
16.	Fixtures for showers, toilet flushing and drinking water should be low flow type and restricted to requirements by the use of aerators, avoiding wastage pressure reducing devices or sensor-based controls.	Fixtures for showers, toilet flushing and drinking water has ensured to be low flow type and restricted to requirements using aerators, avoiding wastage pressure reducing devices or sensor-based controls.
17.	Use of glass may be, maximum up to 40% of the total outer wall area to reduce the energy consumption and load air conditioning. If necessary, high quality double glass with special reflective coating may be used in the windows.	Use of glass is being restricted to less than 40 % of the total outer wall area.
18.	Roof should meet the prescribed requirement as per energy conservation building Code by using appropriate thermal insulation material.	Roof is constructed as per energy conservation building Code norms.
19.	Opaque wall should meet prescribed requirement as per the energy conservation Building Code.	Opaque walls are made as per Energy Conservation Building Code.

	SPECIAL CONDITIONS	STATUS AS ON 31.03.2023
20.	The approval of the competent authority shall be obtained for structural safety of the building due to earthquake, adequacy of firefighting equipment etc. as per National Building Code of India, 2005 including protection measure from lightning etc.	Structural safety certificate has been obtained from M/s Ramboll India Pvt. Ltd. vide letter dated 4 th December 2017.
21.	Regular Supervision of the above and the other measures for the monitoring should be in place all through the construction phase to avoid disturbances and pollution to the surrounding.	Regular monitoring and supervision is being conducted during construction phase to avoid disturbances and pollution to the surroundings.
22.	“Consent to Establish” shall be obtained from Odisha State Pollution Control Board before start of any construction work at the site.	We have obtained ‘Consent to Establish’ from Odisha State Pollution Control Board vide. Letter no. 17242, dtd. 31/10/2015.

B. OPETATION PHASE		
	SPECIAL CONDITIONS	STATUS AS ON 31.03.2023
1.	No ground water shall be used during the operation phase. If ground water will be used during operation phase, they shall obtain permission from the water resources department.	Water requirement for the said residential complex is being met from our Tata Steel Plant for which we have agreement with Jaraka Irrigation Department, Dept. of water resource, Govt. of Odisha and water allocation letter granted by dept. of water resource, Govt. of Odisha vide water resource department's letter No 30911 dtd 03.12.2021.
2.	The proponent has to install STP of 730 KLD capacity. Treated effluent from STP shall be recycled / reused to the maximum extent possible after adequate treatment. Treatment of 100% grey water by decentralized treatment should be done. Discharged of unused treated effluent shall conform to the norms and standards of State Pollution Control Board. Necessary Measures should be taken to mitigate the odour problem of STP.	STP (1000 KLD) inside the premises is in operating condition. The treated water from STP is reused in plantation, toilet flushing and horticulture activities. At present, approx. 5085 KL/Month of wastewater is being generated and is treated in STP.

B. OPETATION PHASE


	SPECIAL CONDITIONS	STATUS AS ON 31.03.2023
3.	The Proponent shall provide a polishing pond inside the residential complex to store and reuse the treated waste water from STP. From the Polishing pond, the treated waste water shall be diverted for industrial use for their own steel plant. In no case there should be any discharge of treated effluent to outside of the project premises.	Treated wastewater from STP used in plantation, toilet flushing and horticulture activities.
4.	The proponent shall take steps for protection of Ganda Nallah. There shall not be any Discharge from the residential Complex to Ganda Nallah.	There is no discharge from the residential complex to Ganda Nallah. Treated wastewater from STP used in plantation, toilet flushing and horticulture activities.
5.	The STP Sludge should not be dried nor incinerated within the Project site and should be dispose of as per the norms of SPCB, Odisha.	The sludge generated from STP is utilized as manure in green belt development area and gardens inside the premises.
6.	The STP must treat all kind of pollutions present in it and its capacity should take into account the entire load of sewage generated by the inhabitants.	The STP is capable to treat all kind of pollutions present in its inlet and the capacity of STP has been designed for treatment of entire load of sewage generated from the residential complex.
7.	The project proponent will ensure that under no circumstances, the environment is polluted due to non-functioning / under performance of sewage disposal system of the project.	Regular maintenance is carried out by dedicated team for smooth operation of sewage disposal system of the project.
8.	The solid waste generated should be properly collected and segregated. Wet garbage should be disposed off to be composted and dry / inert solid waste should be dispose through a certified agency for safe disposal. Necessary approval / permissions may be obtained from the concerned authorities. In no case it should be left in the premises untreated.	The solid waste generated is properly collected, segregated and disposed on regular frequency. Wet garbage is converted into manure through Organic waste converters (2 Nos., each having input capacity of 200 Kg/Day).
9.	Diesel power generating sets proposed as source of back-up power for lifts elevators and common area illuminating during operation phase should be of enclose type and conform to Environment (Protection) rule 1986. The height of stack of DG sets should be equal to	To meet the emergency power requirement, three (03) nos. of acoustically enclosed D.G sets of 125 KVA capacity is installed at site.

B. OPETATION PHASE	
SPECIAL CONDITIONS	STATUS AS ON 31.03.2023
the height of needed for the combined capacity of all proposed DG sets put together and should be more than the highest building height. Low sulfur diesel should be used. The location of the DG set may be decided in consultation with Odisha State Pollution Control Board. Care may be taken to avoid disposal of smoke / pollutants from DG sets in the residential area. Low sulfur diesel oil (LDO OR HSD) is to be used in DG sets.	Adequate stack height provided as per norms. Low Sulphur diesel is being used.
10. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time, the noise levels measured at the boundary of the sites shall be restricted to permissible levels to comply with the prevent regulations.	Provisions have been taken to attenuate noise like; <ul style="list-style-type: none"> • movement of construction vehicles are restricted to peak hours only. • use of construction machineries with lesser noise and vibrations. Regular monitoring of noise is being conducted at daytime and nighttime. Noise Monitoring report is attached as Annexure-2.
11. Green belt & avenue plantation of tree over the site area (minimum 20%) shall be done using native tree species / shrubs improving greenery & keeping in view aesthetics considerations in the whole complex. Professional landscape architects should be engaged to design the green layout to provide for multi-tier plantation and green fencing all around, mitigation various environmental pollutants like dust, noise, emission etc. and pathway for joggers.	Green belt development has been initiated and being expedited to cover more than 20% of the total land area. To enhance the aesthetic beauty of township, development of landscapes inside township area is being implemented. Green belt details as on date is given in tabular form as Annexure-3 .
12. Rain water harvesting for roof runoff and surface runoff should be implemented as per submitted plan. Before recharging the runoff, pre-treatment must be done to remove suspended matter, oil, grease and other soluble components as per the norms. Rainwater recharge should be through specified recharge pits of required numbers. The surface runoff water should be stored suitably treated and reused for landscaping. The bore-well for	Roof top run off recharge structure has been made. A rainwater harvesting pond has also been made for collection of surface runoff water.

B. OPETATION PHASE	
SPECIAL CONDITIONS	STATUS AS ON 31.03.2023
rainwater recharging should be kept at least 5 meter above the highest ground water table. The technology may preferably be adopted from a registered commercial firm with performance guarantee.	
13. Weep holes in the compound walls shall be provided to ensure natural drainage of excessive rain water in the project area during the monsoon period after the harvesting operations. Care must be taken so that there is no water logging in the territory and drainage is 100%.	Weep holes are provided in compound walls for natural drainage of excessive rainwater during monsoon. Proper drainage has been provided to prevent water logging.
14. Traffic congestion near the entry and exit points from the road adjoining the proposed project site must be avoided. Traffic congestion shall be avoided inside the project site. The area earmarked for parking shall not be used for any other purpose. Alternative entry and exit must be provided to handle excess traffic and emergency situations.	Separate entry and exit point to the township has been provided with 7 (seven) meter wide bituminous road to avoid traffic congestion. Sufficient parking space has been provided inside the premises at the area earmarked for parking.
15. A report on the energy conservation measures to energy conservation norms finalized by the Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc. and submitted to the SEIAA, Odisha in three months' time before operation/habitation.	Report on the energy conservation measures has been submitted to the SEIAA, Odisha vide our Letter No. KPO/Env/C-08/ 67/ 2017 dtd. 15. 03. 2018. We have also obtained necessary permissions prior to operation/habitation as below: <ul style="list-style-type: none"> • CTO from Odisha State Pollution Control Board vide Consent No 5305 dtd 31/03/2023 valid till 31.03.2024. • Fire Safety Certificate from Directorate General Fire Services, Home guards and civil defence, Odisha on 31/01/2019, 03/11/2019, 12/01/2021 and 18/08/2021. • Occupancy certificate from Kalinganagar Development Authority on 14/03/2019, 29/02/2020, 26/04/2020 and 11/07/2022.

B. OPETATION PHASE		
	SPECIAL CONDITIONS	STATUS AS ON 31.03.2023
16.	The proponent shall be use at least 2-5% of non-conventional energy (solar energy) (i.e. % of total energy consumption).	Provisions for installation of Solar Panel on roof top has been made, especially for water heating and streetlights. Solar Panel having capacity 108000 KWh has been installed at roof top of the buildings.
17.	Provisions of solar hot water storage / supplies at the roof of top may be made as per statutory norms of CPCB/MoEF/SPCB, Odisha.	Provision has been made as per statutory norms of CPCB/MoEF&CC/OSPCB, Odisha. Installation and commissioning of Solar water geysers (total capacity 29500 L) in buildings are completed.
18.	Energy conservation measures like installation of CFLs/TFLs for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and TLFs should be properly collected and disposed off/ sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid toxic contamination, use of solar panels be adopted to the maximum extent possible, especially for street lights.	CFLs/TFLs are in use for lighting the areas outside the building. The used CFLs and TFLs will be handed over to authorized vendors for the proper disposal. Solar panels have been provided in the roof top of the building for water heating.
19.	The building blocks should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	The building has been constructed after the approved drawing from the KNDA to allow movement of fresh air and passage of natural light, air and ventilation, between them.
20.	The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this fund shall be diverted for other purposes like annual allocation and maintenance / monitoring etc. and expenditure for this fund should be reported to the SEIAA, Odisha on regular basis.	The funds earmarked for the environment protection measures has not been diverted for any other purposes and is judiciously utilized. Till Mar'23 Rs.320.00 lakhs have been utilized for the environment protection measures.

Annexure-1

**TATA**

Tata Steel Limited


TATA STEEL ENVIRONMENTAL CLEARANCE

The State Environment Impact Assessment Authority (SEIAA), Odisha has accorded Environmental Clearance to Residential Complex of Tata Steel Limited for Tata Steel Plant located at Kalinganagar Industrial Complex at Village Khurunti & Gadapur, in the district of Jajpur, Odisha.

The copies of Environmental Clearance, SEIAA/4669 dated 17.08.2015 are available for reference with SEIAA, Odisha and Odisha State Pollution Control Board (OSPCB) and may also be seen at website of the Board.

The State Environment Impact Assessment Authority (SEIAA) has accorded the environmental clearance for the said project under the provisions of EIA Notification, 2006.

Project Manager, Residential Complex, Tata Steel

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TATA STEEL

ପରିବେଶ ମଞ୍ଜୁରୀ

ରାଜ୍ୟ ପରିବେଶ ପ୍ରଭାବ ଆକଳନ ପ୍ରାଧିକରଣ (ଏସ୍‌ଇଆଇଏଏ) ଓଡ଼ିଶାର ପାଳିଚୁର ଜିଲ୍ଲାର ଖୁରୁଣ୍ଡି ଓ ଗାଡ଼ପୁର ଗ୍ରାମରେ କଳିଙ୍ଗନଗର ଶିଳାଖନରେ ଅବସ୍ଥିତ ଟାଟା ଷ୍ଟିଲ ଲିମିଟେଡ୍‌ର ଷ୍ଟିଲ ପ୍ଲାଣ୍ଟ ପାଇଁ ଆବାସିକ ପରିସର ନିର୍ମାଣ କରିବା ନିମନ୍ତେ ପରିବେଶ ମଞ୍ଜୁରୀ ପ୍ରଦାନ କରିଛନ୍ତି ।

ପରିବେଶ ମଞ୍ଜୁରୀର କପି SEIAA/4669 ତା ୧୭.୦୮.୨୦୧୫ରେ ଏସ୍‌ଇଆଇଏଏ, ଓଡ଼ିଶା ଏବଂ ଓଡ଼ିଶା ରାଜ୍ୟ ପ୍ରଦୂଷଣ ନିୟନ୍ତ୍ରଣ ବୋର୍ଡ଼ ନିକଟରେ ଉପଲବ୍ଧ ଏବଂ ବୋର୍ଡ଼ର ୱେବସାଇଟ୍‌ରେ ମଧ୍ୟ ଦେଖାଯାଇପାରିବ ।

ପରିବେଶ ପ୍ରଭାବ ଆକଳନ ରିପୋର୍ଟ, ୨୦୦୬ ଆଧାରରେ ରାଜ୍ୟ ପରିବେଶ ପ୍ରଭାବ ଆକଳନ ପ୍ରାଧିକରଣ (ଏସ୍‌ଇଆଇଏଏ) ଏହି ପ୍ରକଳ୍ପ ନିମନ୍ତେ ପରିବେଶ ମଞ୍ଜୁରୀ ପ୍ରଦାନ କରିଛନ୍ତି ।

ପ୍ରକଳ୍ପ ପ୍ରବନ୍ଧକ, ଆବାସିକ ପରିସର, ଟାଟା ଷ୍ଟିଲ



The Member Secretary,
State Environmental Impact Assessment Authority,
Qr. No.- 5RF-2/1, Unit-9
Bhubaneswar - 751012, Odisha.

KPO/Env/C08/G1/2015
18th Sept. 2015

Dear Sir,

Sub: Environmental Clearance for proposed construction of Residential Complex of Tata Steel Ltd located at KNIC at Khurunti & Gadapur, Dist - Jajpur with Total Built up Area of 147380 Sq. m

Kindly refer to the Environmental Clearance granted by SEIAA, vide letter no. SEIAA/4669 for the above referred project which was received by us on 10.09.2015.

We wish to submit that in compliance with the stipulated General Condition no. 9 of the above referred Environmental Clearance, information regarding grant of Environmental Clearance was given to public through newspaper advertisement as per the following details:

<u>Language</u>	<u>News paper</u>	<u>Page No.</u>	<u>Date</u>
Odia	The Samay	03	15/09/2015
English	New Indian Express	09	15/09/2015

Copies of above advertisements are enclosed for your kind information.

We trust the information furnished is in compliance with the condition.

Thanking You,

Yours faithfully
For **Tata Steel Limited**

Rajiv Kumar
Rajiv Kumar
Vice President, Operations, KPO
VP (Operations-KPO)
Encl: As above
TATA STEEL LIMITED



✓ Copy: Addln. PCCF(C), MoEF Eastern Regional Office for kind information ✓
Member Secretary, OSPCB for kind information

Annexure-2

AMBIENT AIR QUALITY (INSIDE PLANT)														
Period: Oct'23 to Mar'23														
Sl. No	Sampling Stations	Month	PM 10 µg/m ³	PM 2.5 µg /m ³	SO ₂ µg/ m ³	NOX µg / m ³	CO mg/m ³	Ozone (O ₃) µg/m ³	Lead (Pb) µg/m ³	Ammonia (NH ₃) µg/m ³	Benze ne (C ₆ H ₆)	Benzo (a) Pyrene ng /m ³	Arsenic (As) ng /m ³	Nickel (Ni) ng/m ³
1	Main Entrance	Oct'22 to Mar'23	66.64	33.79	19.0	24.18	0.48	23.22	0.02	14.47	< 2.0	BDL	< 2.0	< 2.0
2	STP Area		73.87	28.68	32.3	36.8	0.48	25.34	0.02	34.1	< 2.0	BDL	<1.0	< 2.0
3	Near E Building		75.29	23.48	12.8	16.7	0.70	23.47	<0.01	24.9	< 2.0	BDL	<1.0	< 2.0
4	South Boundary		65.53	33.45	26.5	30.8	0.71	24.53	<0.01	22.1	<4.2	<0.5	<1.0	<5.0
5	Near D Building		70.68	37.83	23.1	28.2	0.51	19.37	<0.01	18.5	<4.2	<0.5	<1.0	<5.0
NAAQ Standard			100 (24 Hrs.)	60 (24 Hrs.)	80 (24 Hrs.)	80 (24 Hrs.)	2 (8 Hrs.)	100 (8 Hrs.)	1 (24 Hrs.)	400 (24 Hrs.)	05 (Annual)	01 (Annual)	06 (Annual)	20 (Annual)

Noise Monitoring Report
Period: Oct'22 to Mar'23

Noise Monitoring Location	Oct'22		Nov'22		Dec'22		Jan'23		Feb'23		Mar'23		Average		NOISE STANDARDS	
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day time	Night time	Day time	Night time
	(in dBA)															
Residential Complex for Tata Steel at KNIC	50.3	39.5	50.8	40.5	49.5	38.8	48.8	34.6	49.9	41.5	50.4	39.6	49.9	39.0	55	45
Near DG set	50.8	40.5	51.1	40.8	50.2	39.5	49.8	35.7	50.6	42.1	51.1	40.8	50.6	39.9	55	45
South Boundary	51.0	40.2	51.5	41.2	50.2	39.4	49.5	35.3	50.4	41.8	51.4	40.1	50.7	39.6	55	45
Near D Building	48.8	38.0	49.1	39.0	48.0	37.3	47.3	33.1	48.4	39.9	48.9	38.1	48.4	37.5	55	45

Day Time: 06.00am to 10.00pm

Night time: 10.00pm to 06.00am

26	Arsenic (as As), mg/l, max	0.05	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
27	Cyanide (as CN), mg/l, max	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
28	Lead (as Pb), mg/l, max	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
29	Zinc (as Zn), mg/l, max	5	0.53	0.54	0.55	0.54	0.57	0.59	0.55
30	Nickel as Ni, mg/l, max	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
31	Total Chromium as Cr, mg/l, max	-	0.021	0.021	0.022	0.023	0.026	0.027	0.02
32	Chromium (as Cr+6), mg/l, max	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
33	Mineral Oil, mg/l, max	0.01	ND	ND	ND	ND	ND	ND	ND
34	Total Coliform, MPN/ 100 ml	-	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
35	E-coli , MPN/ 100 ml	-	Absent	Absent	Absent	Absent	Absent	Absent	Absent
36	Total Dissolved Solids, mg/l, max	500	185	186	187	188	184	185	185.83
37	Residual, free Chlorine, mg/l, min	0.2	ND	ND	ND	ND	ND	ND	ND
38	Boron mg/l, max	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

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Annexure-3

Green belt development report

Year of Plantation	No. of Tree Plantation	No. of Shrubs Plantation	Total area covered (Sqmt)	Tree Survival (%)
Till 2018	5000	-	20000	85%
2018-19	400	12000	7055	96%
2019-20	150	4000	2645	94%
2020-21	40	2000	640	100%
2021-22	4030	1616	10484	100%
2022-23	168	2350	3861	100%
Total	9788	21866	44535	95%

Species planted:

Spathodea campanulata, *Cordia sebestena*, *Anthocephalus cadamba* (Kadamba), *Ficus benjamina*, *Bauhina purpurea* (Kanchana), *Acacia aurifuliformis* (Acacia), *Dalbergia sissoo* (Sisu), *Azadirachta indica* (neem), *Cassia tora* L (Chakunda), *Peltophorum pterocarpum* (Yellow Gulmohar), *Lagerstriemia indica* (Sabani), *Nerium olender* (Kaniar)

Maintenance:

- Maintenance is done on regular basis by dedicated horticulture team.
- For watering tankers fitted with flexible pipe are used.
- There are also fixed pipelines provided for watering of plantation.
- Pesticides and fertilizers are used as per requirement.

Some photographs of Residential Complex



Green Belt view



Aesthetic View



Continuous Ambient Air Quality Monitoring Station installed



Roof Top Rainwater Harvesting



Organic waste composting machines are in operation



1000 KLD Sewage Treatment plant in operation