



**BY REGD. POST**

TSL/J/E9.3/ENV/32

Date: 02.05.2024

To  
The Chief Conservator of Forests  
Regional Office, Eastern Region,  
Ministry of Environment Forests & CC  
A-3, Chandrasekharpur,  
Bhubaneswar-751 023

**Sub: Six Monthly Compliance Report on Environmental**

(From 1<sup>st</sup> October, 2023 to 31<sup>st</sup> March,2024)

EC Ref. No. J-11011/16/2004-IA (I) dt. 11.11.2004, J-11011/3/98/IA II (I) dt. 14.10.1998 and EC Ref. No. J-11011/16/2004-IA.II (I) dt. 01.05.2017 and EC Ref. No- J-11011/16/2004-IA.II (I) dt. 19.11.2018

Dear Sir,

Please find enclosed the six-monthly compliance report on the environmental performance (including the details of expenditures incurred) of Tata Steel Joda (Formerly Tata Steel Long Products Limited) Joda, Odisha for the period from 1st October 2023 to 31st March,2024.

Thanking You,

Yours faithfully,

(Bibhudutta Mohanty)  
Chief Tata Steel Joda

- Cc: Director,  
Ministry of Environment & Forests  
(IA Division)  
Indira Paryavaran Bhavan,  
Jorbagh, New Delhi-110 003
- Cc: The Zonal Incharge,  
Central Pollution Control Board,  
Southend Conclave  
# 502, 5<sup>th</sup> floor,  
582, Rajdanga Main Road,  
Kolkata – 700 107
- Cc: Member Secretary, State Pollution Control Board  
Paryavaran Bhavan,  
A/118, Nilakanthanagar,  
Unit-VIII, Bhubaneswar-751 012
- Cc: Regional Officer  
State Pollution Control Board Odisha,  
At/Po: Baniapat, College Road Keonjhar,  
Dt. Keonjhar, Odisha

*cc to: Env file*

**TATA STEEL LIMITED**

Tata Steel Sponge Iron Joda Keonjhar Odisha 758 034 India  
Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001 India  
Tel +91 6767 278178 Website www.tatasteel.com  
Corporate Identity Number L27100MH1907PLC000260

**TATA STEEL JODA**  
**(Formerly Tata Steel Long Products Limited)**  
**Environmental Compliance Report**

Period: 01/10/2023 to 31/03/2024

EC Ref. No. J-11011/16/2004-IA(I) dt. 11.11.2004 and J-11011/3/98/IA II (I) dt. 14.10.1998

**A. Specific Conditions and its compliance Report:**

Specific Conditions	Compliance
i. The gaseous emission from various process units should conform to the load/mass based standards notified by this ministry on 19 <sup>th</sup> 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. At no time the emission level should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	The gaseous emission from various process units conforms to the standard notified by the Govt. The emission data for the last six months is given in Annexure-I indicating that emission level is within the prescribed limits. The plant is operated with all adopted pollution control measures.
ii. There should be no discharge of process effluent. As reflected in the EIA/EP report; the company should undertake water conservation measures by recycling the hot water through cooling tower and existing cooling pond to bring down the makeup water requirement for the proposed 3 <sup>rd</sup> kiln. The existing cooling pond should be used for storage of water for miscellaneous use. The domestic waste water after treatment in STP should be used for green belt development.	There is no discharge of process effluent. The company has taken 100% water conservation measures by recycling the hot water through cooling tower. The domestic water, boiler blow down and cooling tower blow down water after treatment is being reused for Brick plant, dust suppression, road washing, firefighting and gardening purpose. STP (Sewage Treatment Plant) has been installed at township and the water is used for dust suppression at dump yard.
iii. In plant control measures for checking fugitive emission from spillage /raw materials handling should be provided. Further specific measures like provisions of dust extraction and dust suppression system for product and raw material handling, water sprinkling system at the waste disposal area to control the fugitive emission should be provided. Data on fugitive emission should be regularly monitored and records maintained.	The control measures for checking fugitive emissions from spillage /raw materials handling are in place. Dust extraction system, chemical dust suppression system and telescopic unloading spouts at different unloading points of bunkers for the product and raw material handling system have been installed. One movable high pressure water fogging canon is available to control sporadic fugitive dust. Two numbers of water tankers are used to control fugitive dust emissions at the waste disposal area and also on the road as well as at the railway siding. Road vacuum cleaner (latest Technology) is used for sweeping dust from the roads. 3nos. wheel washing, & water fogging system at Dump yard area facility has been installed at waste handling area to minimize road dust. The data for fugitive dust emission at 10 (ten) identified points, measured at a distance of 10 meters from the sources is given in Annexure-II
iv. The company should provide gas cleaning system. The waste gas should be passed through the dust catcher followed by combustion of unreacted CO with excess air in the post combustion chamber. The particulate emission should be controlled by installation of ESP.	Suitable gas cleaning systems have been provided. The waste gas passes through the dust catcher (DSC) followed by post combustion chamber (PCC) where CO reacts with excess air. The particulate emission is controlled through installation of ESPs. The data on particulate emission from stacks is given in Annexure-I.

*Abhaup*

**TATA STEEL JODA**  
**(Formerly Tata Steel Long Products Limited)**

Specific Conditions	Compliance
V. As per the solid waste management plan submitted to the Ministry, the company should enhance efforts for reuse of solid waste by brick making and sale for other useful purposes. The part of the sludge, ESP dust and char should be disposed off in the dump area for which a separate area of 17.5ha of area has been earmarked. A garland drain all along the solid waste dump area should be constructed to prevent the run off during the rainy season. Further as reflected in the EIA/EMP report, a compound wall should be constructed along the river stretch to prevent the ingress of solid waste into the river.	Under solid waste management plan, company has enhanced its brick manufacturing capacity substantially. During 2023-24, company has utilized 100% of (ESP dust) through various initiatives. The solid waste such as char, de-dusting material etc are being sold 100% to the parties for industrial use. The balance quantity of waste is disposed off at identified areas within the plant premises. In the year 2023-24, total 98.68% of waste is utilized or sold during the year . A garland drain and toe wall has been provided along the boundary wall to restrict the movement of solid waste during monsoon run off.
VI. A green belt of adequate width and density should be developed in 25% of plant area, and along the boundary wall of the solid waste dump site as per the CPCB guidelines.	A thick green belt has been provided along the plant premises to arrest the propagation of dust. Every year focused plantation program is organized. The overall green cover is more than 33% of the total area. So far 1,88,235 trees have been planted with survival rate of >95%. In the year 2021-22 the company has planted 10,155 nos. of saplings, near fire Station area, Lahanda village area, which areas are adjacent to NH-520. 2,100 nos. saplings have been planted at NH-520 site towards Mahadev Nala area in the year 2022-23. In the year 2023-24- 2,650 nos. saplings have been planted at TSL plant premises (Lurgi road area) and Railway siding. In the financial year 2024-25 we have planned to further increase our greenbelt area.
VII. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	As per Factories Act, company carries out the health checkup of its employees and contract workers on every year and records of the same is maintained. 100% employees and contract workers were covered for the medical checkup. The data of medical checkup is given in Annexure-IV.
VIII. Recommendations made in the CREP should be implemented.	As per CREP, various control measures are taken to control primary and secondary emission which include ESPs, Dust extraction systems, chemical dust suppression systems, telescopic unloading spouts, road water sprinklers, road vacuum cleaning machine, mobile high pressure fogging machine, high pressure dry fog system at inlet and outlet of raw material conveyor and vibrating screen etc.

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**TATA STEEL JODA**  
**(Formerly Tata Steel Long Products Limited)**

**B. General Conditions and its compliance Report:**

General Conditions	Compliance
i. The project authorities must strictly adhere to the stipulations made by the Orissa Pollution Control Board and the State Government.	The company follows the stipulation made by SPCB and the State Government.
ii. No further expansion or modification in the plant should be carried out without prior approval of the Ministry of Environment and Forests.	Company is not carrying out any further expansion or modification in the plant without prior approval of the MoEF & CC.
iii. At least four ambient air quality-monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, SO <sub>2</sub> and NO <sub>x</sub> are anticipated in consultation with the State Pollution Control Board. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in six months.	3 nos. numbers of online ambient air quality monitoring stations have been installed as per direction of State Pollution Control Board. The online data of ambient air quality & stack emission are going to the CPCB & SPCB directly from the monitoring stations and the same data are displaying at company's main Gate in a billboard. Monthly average of online AAQ & stack data's also submitted to The State Pollution Control Board every month and uploaded at company's website. Six monthly reports of the same are regularly submitted to MoEF & CC, CPCB & SPCB. AAAQMS & CEQMS data is shown in Annexure-I.
iv. Industrial waste water should be properly collected treated so as to conform to the standards prescribed under GSR 422(E) dated 19 <sup>th</sup> May 1993 and 31 <sup>st</sup> December, 1993 or as amended form time to time. The treated waste water should be utilized for plantation purpose.	Industrial wastewater after necessary treatment is utilized for brick manufacturing, dust suppression in railway siding and RM yard, dust suppression in dump yard, firefighting, road sprinkling and plantation purpose.
V. The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc., on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA(day time) and 70 dBA (night time).	The overall noise level in and around the plant area is below 85 dB(A). However, inside some machine rooms, where the noise level is higher, suitable PPEs are used. Also suitable instructions/signage have been displayed for proper utilization of PPEs while working inside the same areas. The noise level is also displayed outside of such high noise areas. Noise monitoring data is given in Annexure -II
VI. 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 village like community development programs, educational programs, drinking water supply and health care etc.	The company has complied with all the environmental protection measures and safeguards indicated in the EIA/EMP report. Company has undertaken several initiatives for socio-economic developments in the surrounding villages including community development programs such as; educational programs, drinking water facility, health care, distribution of clothes, toilet under Swachh Bharat scheme, developing fruit orchard, Anganwadi Kendra, mosquito-nets etc. The company has a separate department of social welfare. Also, company is supporting the socio-economic development through a charitable trust named 'Vidyashakti Niyas'.

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**TATA STEEL JODA  
(Formerly Tata Steel Long Products Limited)**

<p>VII. The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.</p>	<p>The company has a separate budget allocated for its environmental expenditure. The expenditure during last six month is shown in Annexure -III</p>
<p>VIII. The Regional office of this Ministry at Bhubaneswar/ Central Pollution Control Board/ State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.</p>	<p>Six monthly monitoring report is regularly submitted to Regional Office of MoEFCC at Bhubaneswar, Zonal office CPCB at Kolkata and SPCB, Bhubaneswar well within the stipulated time.</p>
<p>IX. The project proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>. This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.</p>	<p>The Company had advertised in the two widely circulated local news papers within a week of grant of environmental clearance by MoEF &amp; CC as per stipulation made</p>
<p>X. The project Authority should 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>	<p>Information to the Regional office and the Ministry on financial closure and other information as desired were given for all previous projects.</p>

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**TATA STEEL JODA**  
**(Formerly Tata Steel Long Products Limited)**

Annexure -I

xviii. ENVIRONMENTAL PARAMETERS

**PM<sub>10</sub>: (Unit- µg/m<sup>3</sup>)**

Location	Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24
Plant Area	97.73	97.10	98.50	98.04	98.90	98.00
Township Area	98.27	98.78	98.65	96.98	97.34	99.01
Mobile Van at Main Gate	97.56	98.92	99.01	97.39	98.60	98.92

**PM<sub>2.5</sub>: (Unit- µg/m<sup>3</sup>)**

Location	Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24
Plant Area	43.50	58.66	57.71	58.49	44.70	54.33
Township Area	50.62	57.79	59.00	57.72	58.35	59.00
Mobile Van at Main Gate	55.99	56.63	58.27	58.53	59.70	58.73

**Measurement of SO<sub>2</sub>, Nox & CO**

Month	Location	Parameters		
		SO <sub>2</sub> µg/m <sup>3</sup>	Nox µg/m <sup>3</sup>	CO µg/m <sup>3</sup>
Oct'23	Plant Area	15.33	28.04	2.54
	Township Area	9.71	4.51	0.93
	Mobile Van at Main Gate	12.70	26.70	0.73
Nov'23	Plant Area	17.00	32.33	2.00
	Township Area	9.77	21.35	0.97
	Mobile Van at Main Gate	11.76	28.20	0.67
Dec'23	Plant Area	17.15	31.00	1.5
	Township Area	8.61	6.61	1.01
	Mobile Van at Main Gate	12.95	12.95	0.68
Jan'24	Plant Area	20.70	31.56	0.36
	Township Area	8.97	14.64	1.07
	Mobile Van at Main Gate	12.86	32.98	0.70
Feb'24	Plant Area	21.86	31.63	0.30
	Township Area	9.13	13.48	1.01
	Mobile Van at Main Gate	31.42	12.81	0.65
Mar'24	Plant Area	29.78	26.56	0.57
	Township Area	19.71	22.70	0.94
	Mobile Van at Main Gate	13.65	18.52	0.69

**Stack Emission (Unit- mg/Nm<sup>3</sup>)**

Location	Oct'23			Nov'23			Dec'23			Jan'24			Feb'24			Mar'24		
	PM	SO <sub>2</sub>	CO															
ESP OF KILN-I	31.94	234.59	68.04	27.00	397.91	65.48	32.48	129.38	128.77	22.13	253.20	147.60	28.80	238.75	158.74	62.00	280.23	112.00
ESP OF KILN-II	27.84	253.46	101.02	26.47	285.11	84.27	30.75	196.81	123.07	34.88	260.20	110.30	36.36	294.24	74.52	36.16	401.66	103.09
ESP OF KILN-III	35.63	153.96	111.31	30.46	295.35	135.02	44.12	320.63	89.07	56.43	243.99	96.43	46.47	219.22	102.09	47.09	277.68	104.96
DE-I	28.40	-	-	34.09	-	-	31.12	-	-	29.75	-	-	26.84	-	-	27.21	-	-
DE-II	34.50	-	-	33.71	-	-	32.90	-	-	35.33	-	-	39.02	-	-	49.29	-	-
DE-III	51.18	-	-	51.22	-	-	45.10	-	-	45.25	-	-	50.48	-	-	31.25	-	-

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**TATA STEEL JODA**  
**(Formerly Tata Steel Long Products Limited)**

Annexure -II

**Ambient Noise level inside plant area (work zone) during day in dB (A)**

Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24
83.30	81.20	82.10	84.20	83.80	83.50

**Ambient Noise level inside plant area (Work zone) during night in dB (A)**

Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24
65.90	63.70	64.40	64.30	65.50	65.30

**Ambient Noise level periphery plant area (During Night) in dB (A)**

Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24
46.60	45.70	47.00	49.50	48.80	49.10

**Ambient Noise level periphery of the plant area (During Day) in dB (A)**

Oct'23	Nov'23	Dec'23	Jan'24	Feb'24	Mar'24
56.40	58.50	59.60	58.80	56.90	57.20

**Fugitive dust emission (Unit:µg/m<sup>3</sup>)**

Sl. No.	Location	Particulate Matter in (µg/m <sup>3</sup> )	
		16.12.2023	20.03.2024
01	Kiln-I ISB area	834.00	911.00
02	Kiln-II ISB area	945.00	968.00
03	Kiln-III ISB area	911.00	902.00
04	Kiln-I cooler discharge area	1022.00	977.00
05	Kiln-II cooler discharge area	917.00	983.00
06	Kiln-III cooler discharge area	899.00	1002.00
07	Iron ore feed hopper area	925.00	944.00
08	Coal feed hopper area	985.00	932.00
09	Iron ore screen area	1044.00	1034.00
10	Coal crusher area	1102.00	1045.00
<b>Average</b>		<b>958.40</b>	<b>969.80</b>

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**TATA STEEL JODA**  
**(Formerly Tata Steel Long Products Limited) Annexure -III**

**Expenditure Incurred in Pollution Control for running & maintenance of pollution control equipment etc. during 01.10.2023 to 31.03.2024**

Sl. No.	Particulars	Amount (Lakh)
i)	ESP-I,II & III maintenance	11.91
ii)	DE-I,II & III systems maintenance	13.64
iii)	Electricity charges of DE systems+ ESP system	130.82
iv)	Cooling water system of Kiln-I, Kiln-II & Kiln-III (Maintenance of Cooling Tower)	5.15
v)	Vacuum Cleaning Machines	7.57
vi)	Spraying of water and cleaning of roads: -	9.26
ii)	Repair & maintenance of roads and drains	6.40
viii)	Handling& Disposal waste materials	60.93
ix)	Digging of trenches & sweet soil spreading	6.98
x)	Housekeeping of Platform, walkways, etc	37.12
xi)	Cost involved in Personal Protective Equipment's	12.87
xii)	Ash handling system of (Boiler-I, II & III)	1.54
xiii)	Wastewater treatment	5.83
xiv)	Lawns & Gardens	8.81
xv)	Monitoring & Measurement of environmental parameters	8.70
xvi)	Expenditure for tree plantation and gardens	5.70
cvii)	Any other expenditure on account of Control of pollution of air and water.	30.45
xviii)	Installation of CEQMS (Continues Effluent Quality Monitoring system)	37.00
xvix)	Purchasing of O2, CO & CO2 gas analyzer	45.00
xvixi)	Performance Evaluation of ETP, STP, AAQMS, CEMS, IP Camera etc. by M/s. NIT Rourkela, Odisha	7.38
<b>Total</b>		<b>453.06</b>

*Shankar*

**TATA STEEL JODA**  
(Formerly Tata Steel Long Products Limited)

Annexure -IV

**C. HEALTH CHECKUP STATUS:**

<b>MEDICAL CHECKUP for Permanent Employees (FY 2023-24 )</b>			
Total No. of Employee-296 Medical Check-up carried out- 296 (100% Compliance)			
Health Aspect	Risk Level		
	Normal	Moderate	High
BMI	68.0% BMI < 25	27.0% BMI 25 – 30	5% BMI > 30
HYPERTENSION	64.00 % 120/80 or less	32.0% 121-139/81-89	04 % > 140/90
DIABETES	62% < 140mg/dl	30% 141 – 199mg/dl	08.0% > 200mg/dl

<b>MEDICAL CHECKUP for Contractor Worker (FY 2023-24)</b>			
Total No. of Employee-913 Medical Check-up carried out- 913 (100% Compliance)			
Health Report	Risk Level		
	Normal	Moderate	High
BMI	82.0% BMI < 25	15.0% BMI 25 – 30	3% BMI > 30
HYPERTENSION	78.0 % 120/80 or less	17.0% 121-139/81-89	5.0% > 140/90
DIABETES	75.0% < 140mg/dl	21.0% 141 – 199mg/dl	4.0% > 200mg/dl

*Ashraf*

**TATA STEEL JODA**  
**(Formerly Tata Steel Long Products Limited)**

**Environment Clearance Compliance Report**

**Period- 01.10.2023 to 31.03.2024**

**EC Ref No- EC Ref. No. J-11011/16/2004-IA.II (I) dt. 01.05.2017**

(Enhancement of DRI production 35,000 TPA from 3,90,000 MTPA to 4,25,000 MTPA in the existing facility)

**A. Specific condition and its Compliance Report:**

Specific Conditions	Compliance
i.The project proponent should install 24X7 air monitoring devices to monitor air emission as provided by the CPCB and submit report to Ministry and its Regional Office.	<p>The company has installed 3 numbers of 24X7 online ambient air quality monitoring stations as per direction of State Pollution Control Board. The online data of ambient air quality &amp; stack emission are going to the CPCB &amp; SPCB directly from the monitoring stations and the same data are displaying at company's main Gate in a billboard. Monthly average of online AAQ &amp; stack data is also submitted to The State Pollution Control Board every month and uploaded at company's website. Six monthly reports of the same is regularly submitted to MoEF &amp; CC, CPCB &amp; SPCB.</p> <p>Six monthly monitoring report is regularly submitted to Regional Office of MoEFCC at Bhubaneswar, Zonal office CPCB at Kolkata and SPCB, Bhubaneswar well within the stipulated time.</p>
ii. All the conditions prescribed in the environmental clearance letter No. J-11011/16/2004- IA.II (I) dt. 11.11.2004,shall be strictly complied with.	<p>We are compiling all the conditions prescribed in the environmental clearance letter No.J-11011/16/2004- IA.II (I) dt. 11.11.2004.</p>

*Abhaya*

**TATA STEEL JODA**  
**(Formerly Tata Steel Long Products Limited)**  
**Environment Clearance Compliance Report**  
**Period- 01.10.2023 to 31.03.2024**

**EC Ref No- EC Ref. No. J-11011/16/2004-IA.II (I) dt. 19.11.2018**

(Enhancement of DRI production 40,000 TPA from 4,25,000 MTPA to 4,65,000 MTAP in the existing facility)

**A. Specific condition and its Compliance Report:**

Specific Conditions	Compliance																														
I. All the conditions prescribed in the environmental clearance vide file No. J-11011/16/2004-IA.II (I) dt. 11.11.2004 and 01.05.2017 shall remain unchanged.	We are complying with all the conditions prescribed in the environmental clearance letter No. J-11011/16/2004- IA.II (I) dt. 11.11.2004 and 01.05.2017. The compliance status for both the letter number has given above.																														
II. The project proponent shall reduce the specific consumption of coal, energy, water and specific emission/discharge/production of PM, SO <sub>2</sub> , CO <sub>2</sub> , wastewater and solid waste as submitted and submitted in their online proposal. Periodic compliance status in this regard shall be submitted to the Regional office of the MOEF&CC at Bhubaneswar along with the six monthly compliance report.	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Sp. Consumption</th> <th style="text-align: center;">2022-23</th> <th style="text-align: center;">2023-24</th> </tr> </thead> <tbody> <tr> <td>Coal (T) (Ground Consumption)</td> <td style="text-align: center;">0.910</td> <td style="text-align: center;">0.876</td> </tr> <tr> <td>Coal (T) (Specific Consumption)</td> <td style="text-align: center;">0.889</td> <td style="text-align: center;">0.849</td> </tr> <tr> <td>Energy (MJ/Ton)</td> <td style="text-align: center;">5.11</td> <td style="text-align: center;">4.95</td> </tr> <tr> <td>Water (KL/T of DRI)</td> <td style="text-align: center;">1.99</td> <td style="text-align: center;">1.94</td> </tr> <tr> <th colspan="3" style="text-align: center;">Specific Emission/generation</th> </tr> <tr> <td>PM (µg/m<sup>3</sup>)</td> <td style="text-align: center;">44.50</td> <td style="text-align: center;">40.06</td> </tr> <tr> <td>SO<sub>2</sub> (kg/hr)</td> <td style="text-align: center;">61.19</td> <td style="text-align: center;">56.20</td> </tr> <tr> <td>CO<sub>2</sub> (T/T of DRI)</td> <td style="text-align: center;">1.74</td> <td style="text-align: center;">1.71</td> </tr> <tr> <td>Solid Waste (T/ T of DRI)</td> <td style="text-align: center;">0.479</td> <td style="text-align: center;">0.453</td> </tr> </tbody> </table>	Sp. Consumption	2022-23	2023-24	Coal (T) (Ground Consumption)	0.910	0.876	Coal (T) (Specific Consumption)	0.889	0.849	Energy (MJ/Ton)	5.11	4.95	Water (KL/T of DRI)	1.99	1.94	Specific Emission/generation			PM (µg/m <sup>3</sup> )	44.50	40.06	SO <sub>2</sub> (kg/hr)	61.19	56.20	CO <sub>2</sub> (T/T of DRI)	1.74	1.71	Solid Waste (T/ T of DRI)	0.479	0.453
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	CO <sub>2</sub> (T/T of DRI)	1.74	1.71																												
Solid Waste (T/ T of DRI)	0.479	0.453																													
III. The PP shall take corrective action immediately to the observations made in the certified compliance of Regional Office- Bhubaneswar issued vide letter No.101-162/EPE dated 06/07/2018 and action taken report shall be submitted to the ministry any Regional office- Bhubaneswar within three months from the date of issue of this Environmental clearance.	<b>Compliance to letter no 101-162/EPE dated 06.07.2018 issued by Regional office- Bhubaneswar, MOEFCC has been submitted on 13.08.2018 vide our letter no TSI/J/E9.3/TMD/633.</b>																														
IV. PP shall plant 10,000 trees as avenue plantation with tree guard along NH adjacent to the plant site.	The NH-520 construction job has been completed; The company has requested Project Director NHA to providing space for avenue plantation, vide our letter no. TSLPL/J/E9.3/ENV/256, dtd. 05.07.2021, There is no free land available at present. In the year 2021-22 the company have planted 10,155 nos. of sapling near fire Station area, Lahanda Village area which is adjacent to NH-520. Tree guards are provided along with the saplings. In the year 2022-23 company have planted 2,100 nos. & In the year 2023-24 the company also planted 2,650 nos. local species at NH-520 site along the company boundary wall, Railway siding & Gate no-03 area & Lurgi road area etc.the survival rate is more than 95%.																														
V.100% utilization of fly ash shall be achieved through brick production	We are utilizing around 49.47% of fly ash generated for brick manufacturing. In the financial year 2022-23, 1.11 crore of fly ash bricks were manufactured and during the financial year 2023-24, 73.00 lakh fly ash bricks have been manufactured. The rest of the fly ash is being used for NH-520 construction, State Highway road construction and reclamation of low laying area. 100% utilization																														

*Abhanshu*

	of fly ash utilization has been achieved. We have already supplied 4.71 lakhs ton of fly ash for NH-520 construction.
VI. Installation of advance controller for efficiency enhancement of ESP shall be done	We have installed the advance controller in Kiln-1 ESP, Kiln-2 ESP & Kiln-3 ESP for efficiency enhancement of ESP and the performance is satisfactorily.
VII. The PP shall obtain fresh environmental clearance in case of change in scope of the project if any.	There will no change in the scope of the production enhancement process. We agree to the stipulation to obtain fresh environmental clearance if there is any change in the scope of the project.

*Abheep*