



TSJ/EMD/C-38/092/23

Date: 31 May 2023

Additional Principal Chief Conservator of Forests

(Eastern-Central) Regional Office (ECZ)
Ministry of Environment, Forests & Climate Change
2nd Floor, Headquarter-Jharkhand State Housing Board,
Harmu Chowk, Ranchi-834002

Sub.: Submission of Half Yearly (October'2022 to March'2023) Environment Clearances Compliance Reports (ECCR) for Cold Rolling Mill Complex (CRMC) of Tata Steel Limited at Bara, Golmuri-cum-Jugsalai, Jamshedpur, District- East Singhbhum, Jharkhand

Reference:

1. Environment Clearance of CRMC for 0.3 MTPA vide MoEF&CC letter no. F.No. J-11011/199/2007-IA II (I) dated: 07.08.2007
2. Environment Clearance of CRMC for 0.8 MTPA vide MoEF&CC letter no. F.No. J-11011/22/2013-IA II (I) dated: 15.09.2015

Dear Sir,

This has reference to the captioned subject and cited references. We wish to inform you that we have uploaded the Half Yearly ECCR for the period from **October'2022 to March'2023** on MoEF&CC portal <http://environmentclearance.nic.in/>. Confirmation of the same is attached.

We are herewith submitting the softcopy of the same for your ready reference. You are requested to kindly acknowledgement the same and place in your records.

Thanking you

Yours Faithfully

For Tata Steel Limited

Utsav Kashyap

Head, Environment Clearance & Compliance (TSL)

Encl: As above

Copy to:

1. Zonal Officer, Central Pollution Control Board, Southern Conclave, Block 502, 5th and 6th Floors, 1582 Rajdanga Main Road, Kolkata - 700 107
2. Member Secretary, Jharkhand State Pollution Control Board, T.A. Division Building, HEC Campus, Dhurwa, Ranchi – 834004
3. Regional Officer, Jharkhand State Pollution Control Board, Jamshedpur

TATA STEEL LIMITED

Environment Management Jamshedpur 831 001 India

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Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com



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Home Environment Clearance Only CRZ Clearance Forest Clearance Wildlife Reference

Form for

Proposal Details

Proposal No IA/JH/IND/3455/2012

Category Industrial Projects - 1

Name of the Entity /
Corporate Office* Tata Steel Limited, Jamshedpur

Entity's PAN* AAAC2803M

MoEF File No J-11011/22/2013-IA.II(I)

E-KYC (Please click on E-KYC for Correction / Incomplete Registration Details.)

Proposal No: IA/JH/IND/3455/2012 has been Uploaded successfully.

**Total Conditions=39
Complied=39,Being Complied=0, Not Complied=0,
Partially Complied=0, Agreed to Comply=0**

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ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT

October 2022 to March 2023

**Cold Rolling Mill Complex
(CRMC), Jamshedpur**

Six Monthly Compliance Status report of Environmental Clearance of Cold Rolling Mill Complex (CRMC) to produce Cold Rolled Coils (2,50,000 TPA) and Hot Rolled Pickled Coils (50,000 TPA)

**ENVIRONMENTAL MANAGEMENT DEPARTMENT
TATA STEEL LIMITED
JAMSHEDPUR**

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) to produce Cold Rolled Coils (2,50,000 TPA) and Hot Rolled Pickled Coils (50,000 TPA) at Bara, Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no J-11011/199/2007-IA.II (I) dated August 7, 2007

SN	Compliance Conditions	Compliance Status												
	Specific Conditions:													
i	Fume extraction system shall be provided to extract acid vapors or fumes from pickling line, Pickling bath shall be covered with tight granite covers. Ventilation chamber shall be provided in Cold Rolling Mill (CRM) plant to control LPG emissions.	<p>The following equipment are provided to control Air Pollution:</p> <ol style="list-style-type: none"> 1. Fume extraction system including scrubber in pickling line. 2. Bag filter in shot blasting machine. 3. Roof-top ventilation system. <p>This system is used to collect, scrub, clean and vent fumes and vapors from the wash tank, pickling tanks, rinse tank, storage, and re-circulating tanks. Pickling baths are covered with tight granite covers. There is no LPG emission inside plant premises.</p>												
ii	Total water requirement from M/s JUSCO is about 1712 m ³ /day as per the present available data. No ground water shall be used. Wastewater treatment plant for treatment of wastewater shall be provided using oil separation, acid neutralization and clarification. The treated effluent shall be used for green belt development. The plant as indicated shall adopt zero discharge concepts in disposing the wastewater. Domestic effluent shall be treated in Sewage Treatment Plant.	<p>Water consumption is metered and recorded regularly & the same is within prescribed limit for Steel Plants and as mentioned in EC.</p> <table border="1"> <thead> <tr> <th>Requirement</th> <th>Limit</th> <th>UoM</th> <th>FY'21</th> <th>FY'22</th> <th>FY'23</th> </tr> </thead> <tbody> <tr> <td>Steel Plant</td> <td>5</td> <td>M3/T</td> <td>0.84</td> <td>0.78</td> <td>0.77</td> </tr> </tbody> </table> <p>Wastewater treatment plant for the treatment of oily and acidic waste have been installed and are in operation. The excess treated effluent is being stored at the pond inside Bara Complex. The treated water is being used for plantation/dust suppression and other low end uses. No groundwater is used. Domestic wastewater generated inside plant is being treated in STP having capacity of 25 m³/day.</p>	Requirement	Limit	UoM	FY'21	FY'22	FY'23	Steel Plant	5	M3/T	0.84	0.78	0.77
Requirement	Limit	UoM	FY'21	FY'22	FY'23									
Steel Plant	5	M3/T	0.84	0.78	0.77									
iii	Iron oxide from Acid Regeneration Plant (ARP) shall be sold to authorized vendors for further use. Non-hazardous solid waste from neutralization process in CRM shall also be properly disposed of. Oily sludge shall be sold to authorized re-cyclers / re-processors for proper disposal through incineration.	<p>Proper handling, storage, utilization, and disposal of all the solid waste generated are being ensured.</p> <ul style="list-style-type: none"> • Iron oxide is recycled by paint industry. • Oily scum and sludge are disposed by authorized agency (Adityapur waste management private limited). • Solid waste generated at CRM Bara is being 100% utilized through internal and external applications. 												
iv	Green belt shall be developed in 2.5 ha (33%) out of the total of 7.4 ha within and around the plant premises as per the CPCB guidelines in consultation with DFO.	<p>Green belt at CRM Bara complex has been developed as per CPCB guidelines.</p> <ul style="list-style-type: none"> • Approx. 3.5 Ha area in and around plant is under plantation which is more than 33% of the plant area. • We have planted 13120 no. of samplings in the above area till date. • We have developed approx. 5m wide area of plantation around the plant as per CPCB guidelines. • Density of plantation > 3000 plants/Ha which is more than CPCB guidelines. 												
v	Permission from the State Government shall be obtained regarding impact of the proposed project on the Dalma Reserve Forest.	<p>It has been stated that the project has obtained necessary permission from the State Forest Department and approval received vide letter no. 1204 dated 17-04-2008 & letter no 2614 dated 02-09-2014.</p>												

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) to produce Cold Rolled Coils (2,50,000 TPA) and Hot Rolled Pickled Coils (50,000 TPA) at Bara, Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no J-11011/199/2007-IA.II (I) dated August 7, 2007

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	Specific Conditions:															
vi	As mentioned in EIA / EMP, 10.20 Crores and 0.21 Crores earmarked towards the capital cost and recurring cost per annum respectively for Environmental & Pollution Control Measures shall be judicially utilized to implement the conditions stipulated by MoEF as well as the State Government. The funds shall not be diverted for any other purpose.	<p>For environment protection, 28.14 Cr rupees spent as capital cost. Details are as below:</p> <table border="1"> <thead> <tr> <th>Details</th> <th>Capital Cost</th> </tr> </thead> <tbody> <tr> <td>Pollution control measures (WWTP, ARP, fume extraction systems, etc.</td> <td>12.00</td> </tr> <tr> <td>Provision of online environment monitoring equipment and display</td> <td>1.20</td> </tr> <tr> <td>Rejuvenation of water bodies</td> <td>6.94</td> </tr> <tr> <td>ARP environmental upgradation</td> <td>7.49</td> </tr> <tr> <td>PL rinse scrubber</td> <td>0.51</td> </tr> <tr> <td>Total capital cost (Cr.)</td> <td>28.14</td> </tr> </tbody> </table> <p>Recurring cost for upkeep the pollution control facilities till FY23 is 60.13 crores.</p>	Details	Capital Cost	Pollution control measures (WWTP, ARP, fume extraction systems, etc.	12.00	Provision of online environment monitoring equipment and display	1.20	Rejuvenation of water bodies	6.94	ARP environmental upgradation	7.49	PL rinse scrubber	0.51	Total capital cost (Cr.)	28.14
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General Conditions:																
i.	The project authorities shall strictly adhere to the stipulations made by Jharkhand State Pollution Control Board (Jharkhand SPCB) and the State Government.	We are abiding by all the compliance conditions made by JSPCB and State Government of Jharkhand.														
ii.	No further expansion or modifications in the plant shall be carried out without prior approval of MoEF.	No further expansion or modifications beyond the existing capacity of 0.8 MTPA in the plant will be carried out without prior approval from MoEF&CC.														
iii.	The gaseous emissions from various process units shall conform to the load / mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The 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 shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	<p>Standards issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 is not applicable for CRM Complex, Bara.</p> <p>Interlocking facilities has been provided with pollution control equipment at acid regeneration plant, pickling line, reversing mill and Shot Blasting machine to stop the process.</p>														
iv.	At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission should be regularly submitted to this ministry including its Regional Office at Bhubaneswar, SPCB and CPCB once in six months.	<p>Ambient air quality is being monitored for the following four locations in the plant premises.</p> <ol style="list-style-type: none"> 1. Near Mill dispatch shutter 2. Near Pickling dispatch shutter 3. Near Roll Shop shutter 4. Near HR Receiving Shutter <p>All parameters as per NAAQS, 2009 standards are being monitored and monitoring reports are being submitted to JSPCB on monthly basis and CPCB and</p>														

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) to produce Cold Rolled Coils (2,50,000 TPA) and Hot Rolled Pickled Coils (50,000 TPA) at Bara, Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no J-11011/199/2007-IA.II (I) dated August 7, 2007

SN	Compliance Conditions	Compliance Status
	Specific Conditions:	
		MoEF&CC on six monthly basis. Monitoring reports for all relevant parameters from Apr 2022 to Mar 2023 are attached in Annexure-I .
V	In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Further, specific measures like water sprinkling shall be carried out and fugitive emissions shall be controlled, regularly monitored and records maintained.	The following equipment are provided to control Air Pollution: <ol style="list-style-type: none"> 1. Fume extraction system including scrubber in pickling line. 2. Bag filter in shot blasting machine. 3. Roof-top ventilation system. 4. Water sprinkling and mechanized sweeping machine. Hot Rolled Coils from Main Steel Works are used as raw material in the manufacturing process. As Ore and Minerals are not being handled inside plant premises, there is no generation of secondary fugitive dust emission. However, fugitive dust emission monitoring is being carried out on regular basis, records are maintained and submitted to JSPCB and MoEF&CC. Monitoring reports for all relevant parameters from Apr 2022 to Mar 2023 is attached in Annexure-I .
vi.	Secondary fugitive emissions shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.	Hot Rolled Coils from Tata Steel Jamshedpur and Kalinganagar are used as raw material in the manufacturing process. As Ore and Minerals are not being handled inside plant premises, there is no generation of secondary fugitive dust emission. Therefore, Standards issued by the Ministry vide G.S.R. 414(E) dated 30 th May 2008 are not applicable for CRM Complex, Bara.
vii.	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 December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Effluent treatment plant for the treatment of oily and acidic waste have been installed and this is in operation. The excess treated effluent is being stored at the pond inside Bara Complex. The treated water is being used for plantation/dust suppression and other low end uses. All applicable effluent parameters are being monitored and found within prescribed standards. Monitoring reports are being submitted to JSPCB on monthly basis and CPCB and MoEF&CC on six monthly basis.
viii.	The Company shall develop surface as well as ground water harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	We have rejuvenated an abandoned ash pond inside CRM Bara Complex. The area comprises of two large and three small ponds and serves the purpose of rainwater harvesting. The pond capacity is 11,500 m3 in an area of 1.6 Acres. Green Belt has been developed around the pond in an area of 0.4 acres with native species in the surrounding.

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) to produce Cold Rolled Coils (2,50,000 TPA) and Hot Rolled Pickled Coils (50,000 TPA) at Bara, Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no J-11011/199/2007-IA.II (I) dated August 7, 2007

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ix.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time).	High noise generating equipment has been provided with acoustic enclosures and silencer. However, closed cabins are provided for workers wherever required and people are encouraged to use ear plugs or ear muffs. Monitoring reports for noise from Apr 2022 to Mar 2023 are attached in Annexure-I .																																																																						
x	Recommendations made in the Corporate Responsibility for Environment Conservation (CREP) issued for the steel plant shall be implemented.	No specific recommendations are there under CREP for Cold rolling mills.																																																																						
xi.	Occupational Health Surveillance of the workers shall be done on the regular basis and records maintained as per the Factories Act.	Regular health surveillance of all the workers is being conducted half yearly and annually.																																																																						
xii.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report.	Environment protection measures are being implemented according to measures and safeguard recommended in the EIA/ EMP report.																																																																						
xiii.	The Company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Community development programs in surrounding areas are being implemented. Year wise expenditure for implementation of enterprise social commitment for in and around Jamshedpur are given below (Rupees in crores): <table border="1" data-bbox="790 1294 1497 1662"> <thead> <tr> <th>Interventions</th> <th>FY18</th> <th>FY19</th> <th>FY20</th> <th>FY21</th> <th>FY22</th> <th>FY23</th> </tr> </thead> <tbody> <tr> <td>Health</td> <td>2.3</td> <td>66.8</td> <td>1.5</td> <td>0.5</td> <td>0.6</td> <td>2.2</td> </tr> <tr> <td>Drinking Water</td> <td>0.0</td> <td>0.1</td> <td>0.1</td> <td>0.0</td> <td>0.0</td> <td>0.1</td> </tr> <tr> <td>Education</td> <td>0.9</td> <td>1.5</td> <td>1.8</td> <td>1.3</td> <td>3.0</td> <td>5.0</td> </tr> <tr> <td>Livelihood- Skill Development</td> <td>1.6</td> <td>1.6</td> <td>1.6</td> <td>1.5</td> <td>1.2</td> <td>3.9</td> </tr> <tr> <td>Sports</td> <td>4.4</td> <td>6.7</td> <td>4.7</td> <td>13.3</td> <td>12.3</td> <td>13.2</td> </tr> <tr> <td>Rural Infrastructure</td> <td>2.1</td> <td>-</td> <td>0.0</td> <td>1.4</td> <td>3.1</td> <td>5.3</td> </tr> <tr> <td>Environment</td> <td>2.1</td> <td>2.0</td> <td>2.7</td> <td>2.8</td> <td>4.0</td> <td>4.3</td> </tr> <tr> <td>Ethnicity</td> <td>2.7</td> <td>4.5</td> <td>5.3</td> <td>1.7</td> <td>4.8</td> <td>13.3</td> </tr> <tr> <td>Total</td> <td>16.1</td> <td>83.1</td> <td>17.7</td> <td>22.4</td> <td>29.02</td> <td>47.2</td> </tr> </tbody> </table>	Interventions	FY18	FY19	FY20	FY21	FY22	FY23	Health	2.3	66.8	1.5	0.5	0.6	2.2	Drinking Water	0.0	0.1	0.1	0.0	0.0	0.1	Education	0.9	1.5	1.8	1.3	3.0	5.0	Livelihood- Skill Development	1.6	1.6	1.6	1.5	1.2	3.9	Sports	4.4	6.7	4.7	13.3	12.3	13.2	Rural Infrastructure	2.1	-	0.0	1.4	3.1	5.3	Environment	2.1	2.0	2.7	2.8	4.0	4.3	Ethnicity	2.7	4.5	5.3	1.7	4.8	13.3	Total	16.1	83.1	17.7	22.4	29.02	47.2
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xiv.	The Regional Office at Bhubaneswar / CPCB / SPCB will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	The six-monthly compliance reports of all existing environment clearances granted by Ministry are being submitted to JSPCB's regional office, Ministry's Regional office, Zonal office CPCB Kolkata and JSPCB Ranchi regularly and being submitted online through the respective website. The six-monthly compliance reports along the monitored data is also uploaded in the website https://www.tatasteel.com/corporate/our-organisation/environment/environment-compliance-																																																																						

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) to produce Cold Rolled Coils (2,50,000 TPA) and Hot Rolled Pickled Coils (50,000 TPA) at Bara, Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no J-11011/199/2007-IA.II (I) dated August 7, 2007

SN	Compliance Conditions	Compliance Status
	Specific Conditions:	
		reports/
xv.	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB / Committee 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 shall be forwarded to the Regional Office.	Environment clearance notice had been advertised in two local newspapers viz. Chamakta Aina (Hindi) and Avenue Mail (English) on August 11, 2007 and communication to this effect was also sent to MoEF&CC vide our letter no. EMD/C38/2119/07 dated August 18, 2007.
xvi.	Project authorities 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.	Financial closure and final approval of the project by Board of Tata Steel was done in March 2006.

ENVIRONMENTAL CLEARANCE COMPLIANCE STATUS REPORT

October 2022 to March 2023

**Cold Rolling Mill Complex
(CRMC), Jamshedpur**

**Six Monthly Compliance Status report of Environmental
Clearance of Cold Rolling Mill Complex (CRMC) Capacity
Expansion (0.3 MTPA to 0.8 MTPA) (Ph-II)**

**ENVIRONMENTAL MANAGEMENT DEPARTMENT
TATA STEEL LIMITED
JAMSHEDPUR**

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) Capacity Expansion (0.3 MTPA to 0.8 MTPA) (Ph-II) Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no F.NO J-11011/22/2013-IA (II) I Dated on 15th Sept 2015

S.No	Compliance Conditions	Compliance Status
Specific Conditions:		
i	The PP shall prepare a WL Conservation Plan in and around the project site drawn up in consultation with the PCCF (WL), Government of Jharkhand. Separate Funds shall be earmarked for the various activities identified and details of the expenditure made thereon shall be submitted as part of the Compliance Report to RO, Ranchi.	Wildlife Conservation Plan for Tata Steel works and CRM Complex Bara has been prepared with the help of approved external agency recommended by State Forest Department and the same has been approved by Principal Chief Conservator of Forests – Wildlife (PCCF-WL) GoJ on Nov 13, 2017. Further, Payment of levies as per w.r.t. approved SSWLCP of Tata Steel Limited has been deposited into DFO Jamshedpur account vide challan no. 108 dated: 20.02.2023. Wildlife Conservation Plan will be implemented as directed by Department of Forest, Jharkhand and approved SSWLCP.
ii	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc., shall be provided to keep the emission levels below 50 mg/Nm ³ by installing energy efficient technology.	<p>Online ambient air quality monitoring station has been provided inside CRM Complex Bara and Continuous stack monitoring facility has been provided in Boiler stack. The above has been connected to JSPCB.</p> <p>The following equipment are provided to control Air Pollution:</p> <ol style="list-style-type: none"> 1. Fume extraction system including scrubber in pickling line. 2. Bag filter in shot blasting machine. 3. Roof-top ventilation system. 4. Water sprinkling and mechanized sweeping machine. <p>Monitoring reports for all relevant parameters from Apr 2022 to Mar 2023 is attached in Annexure-I. After upgradation of pollution control equipment of Acid regeneration plant (ARP) for reduction of PM emission, readings are below 50 mg/Nm³.</p>
iii	In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.	<p>The following equipment are provided to control Air Pollution:</p> <ol style="list-style-type: none"> 1. Fume extraction system including scrubber in pickling line. 2. Bag filter in shot blasting machine. 3. Roof-top ventilation system. 4. Water sprinkling and mechanized sweeping machine. <p>Hot Rolled Coils from Main Steel Works are used as raw material in the manufacturing process. As Ore and Minerals are not being handled inside plant premises, there is no generation of secondary fugitive dust emission.</p>

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) Capacity Expansion (0.3 MTPA to 0.8 MTPA) (Ph-II) Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no F.NO J-11011/22/2013-IA (II) I Dated on 15th Sept 2015

iv	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30 th May, 2008 and regularly monitored. Guidelines/Code of Practice issued by the CPCB shall be followed.	Standards issued by the Ministry vide G.S.R. 414(E) dated 30 th May, 2008 are not applicable for CRM Complex, Bara.												
v	The water consumption shall not exceed as per the standard prescribed for the sponge iron plants and steel plants.	<p>Water consumption is metered and recorded regularly & the same is within prescribed limit for Steel Plants and as mentioned in EC.</p> <table border="1" data-bbox="778 734 1474 792"> <thead> <tr> <th>Requirement</th> <th>Limit</th> <th>UoM</th> <th>FY'21</th> <th>FY'22</th> <th>FY'23</th> </tr> </thead> <tbody> <tr> <td>Steel Plant</td> <td>5</td> <td>M³/T</td> <td>0.84</td> <td>0.78</td> <td>0.77</td> </tr> </tbody> </table>	Requirement	Limit	UoM	FY'21	FY'22	FY'23	Steel Plant	5	M ³ /T	0.84	0.78	0.77
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Steel Plant	5	M ³ /T	0.84	0.78	0.77									
vi	Efforts shall further be made to use maximum water from the rainwater harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air-cooled condensers shall be explored and closed-circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.	<ul style="list-style-type: none"> • 2 nos. of rainwater harvesting structures have been constructed having total capacity of 25 m³ to capture rainwater from rooftop and surface catchment area. The harvested rainwater is being used for low end applications. Closed circuit cooling system is deployed to reduce water consumption. • We have rejuvenated an abandoned ash pond inside CRM Bara Complex. The area comprises of two large and three small ponds and serves the purpose of rainwater harvesting. The pond capacity is 11,500 m³ in an area of 1.6 Acres. Green Belt has been developed around the pond in an area of 0.4 acres with native species in the surrounding. 												
vii	All the effluents shall be treated and used for dust suppression and green belt development. No effluent shall be discharged, and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.	<p>Effluent treatment plant for the treatment of oily and acidic waste have been installed and are in operation. The excess treated effluent is being stored at the pond inside Bara Complex. The treated water is being used for plantation/dust suppression and other low end uses.</p> <p>Domestic wastewater generated inside plant is being treated in STP having capacity of 25 m³/day.</p>												
viii	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured, and treated wastewater shall be meet the norms prescribed by the State Pollution Control Board or described under the E (P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Ranchi, SPCB and CPCB.	<p>Effluent treatment plants for the treatment of oily and acidic waste have been installed and are in operation. The excess treated effluent is being stored at the pond inside Bara Complex. The treated water is being used for plantation/dust suppression and other low end uses. No groundwater is used.</p> <p>Ground water monitoring is conducted monthly and monitoring reports are being submitted regularly. Ground water monitoring report for Apr 2022 to Mar 2023 are attached in Annexure-I.</p>												

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) Capacity Expansion (0.3 MTPA to 0.8 MTPA) (Ph-II) Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no F.NO J-11011/22/2013-IA (II) I Dated on 15th Sept 2015

ix	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Ranchi, SPCB and CPCB.	Proper handling, storage, utilization, and disposal of all the solid waste generated is being ensured. Iron oxide is sold to paint industry and other recyclers; Oily scum and sludge is sold to authorized recyclers. Details of solid waste and manifest of hazardous waste is being regularly submitted to statutory authorities.
x	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.	<ul style="list-style-type: none"> • Solid waste generated at CRM Bara is being 100% utilized and sustained through internal and external applications. • Attached as Annexure-II
xi	Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement, and brick manufactures for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Ranchi.	This condition is not applicable as per our manufacturing process does not involve Coal burning and Ash generation.
xii	Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Ranchi, SPCB and CPCB within 3 months of issue of environment clearance letter.	Onsite emergency plan & Disaster Management Plan has been prepared and approved by Chief Inspector of Factories; Jharkhand vide letter no. 7/Plan 10215/2016-467 dated March 14, 2018. The report has been submitted to JSPCB and MoEF&CC.
xiii	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.	<ul style="list-style-type: none"> • Solid waste generated at CRM Bara is being 100% utilized and sustained through internal and external applications.
xiv	As proposed, green belt shall be developed in 33% of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	Green belt at CRM Bara complex has been developed as per CPCB guidelines. <ul style="list-style-type: none"> • Approx. 3.5 Ha area in and around plant is under plantation which is more than 33% of the plant area. • We have planted 13120 no. of samplings in the above area till date. • We have developed approx. 5m wide area of plantation around the plant as per CPCB guidelines. • Density of plantation > 3000 plants/Ha which is more than CPCB guidelines.
xv	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be implemented.	No specific recommendations are there under CREP for Cold rolling mills.

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xvi	At least 5% of the total cost of the expansion project shall be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Ranchi.	<p>Year wise expenditure for implementation of enterprise social commitment for in and around Jamshedpur are given below (in Rs crores):</p> <table border="1" data-bbox="794 369 1469 779"> <thead> <tr> <th>Interventions</th> <th>FY18</th> <th>FY19</th> <th>FY20</th> <th>FY21</th> <th>FY22</th> <th>FY23</th> </tr> </thead> <tbody> <tr> <td>Health</td> <td>2.3</td> <td>66.8</td> <td>1.5</td> <td>0.5</td> <td>0.6</td> <td>2.2</td> </tr> <tr> <td>Drinking Water</td> <td>0.0</td> <td>0.1</td> <td>0.1</td> <td>0.0</td> <td>0.0</td> <td>0.1</td> </tr> <tr> <td>Education</td> <td>0.9</td> <td>1.5</td> <td>1.8</td> <td>1.3</td> <td>3.0</td> <td>5.0</td> </tr> <tr> <td>Livelihood- Skill Development</td> <td>1.6</td> <td>1.6</td> <td>1.6</td> <td>1.5</td> <td>1.2</td> <td>3.9</td> </tr> <tr> <td>Sports</td> <td>4.4</td> <td>6.7</td> <td>4.7</td> <td>13.3</td> <td>12.3</td> <td>13.2</td> </tr> <tr> <td>Rural Infrastructure</td> <td>2.1</td> <td>-</td> <td>0.0</td> <td>1.4</td> <td>3.1</td> <td>5.3</td> </tr> <tr> <td>Environment</td> <td>2.1</td> <td>2.0</td> <td>2.7</td> <td>2.8</td> <td>4.0</td> <td>4.3</td> </tr> <tr> <td>Ethnicity</td> <td>2.7</td> <td>4.5</td> <td>5.3</td> <td>1.7</td> <td>4.8</td> <td>13.3</td> </tr> <tr> <td>Total</td> <td>16.1</td> <td>83.1</td> <td>17.7</td> <td>22.4</td> <td>29.02</td> <td>47.2</td> </tr> </tbody> </table>	Interventions	FY18	FY19	FY20	FY21	FY22	FY23	Health	2.3	66.8	1.5	0.5	0.6	2.2	Drinking Water	0.0	0.1	0.1	0.0	0.0	0.1	Education	0.9	1.5	1.8	1.3	3.0	5.0	Livelihood- Skill Development	1.6	1.6	1.6	1.5	1.2	3.9	Sports	4.4	6.7	4.7	13.3	12.3	13.2	Rural Infrastructure	2.1	-	0.0	1.4	3.1	5.3	Environment	2.1	2.0	2.7	2.8	4.0	4.3	Ethnicity	2.7	4.5	5.3	1.7	4.8	13.3	Total	16.1	83.1	17.7	22.4	29.02	47.2
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xvii	All the commitments made to the public during the public Hearing / Public Consultation meeting shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Ranchi.	Public hearing commitment compliance implementation status is attached as Annexure-III .																																																																						
xviii	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, 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 the project.	The construction work has been completed. All the necessary infrastructure and facilities such as food, medical health care, toilets, safe drinking water, etc. had been provided to construction labour during the project work.																																																																						
General Conditions:																																																																								
i	The project authorities must strictly adhere to the stipulations made by the Jharkhand Pollution Control Board and the State Government.	We are abiding by all the compliance conditions made by JSPCB and State Government of Jharkhand.																																																																						
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the MoEF&CC.	No further expansion or modifications beyond the existing capacity of 0.8 MTPA in the plant will be carried out without prior approval from MoEF&CC.																																																																						

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) Capacity Expansion (0.3 MTPA to 0.8 MTPA) (Ph-II) Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no F.NO J-11011/22/2013-IA (II) I Dated on 15th Sept 2015

iii	At least four ambient air quality monitoring stations should be established in the downward directions well as where maximum ground level concentration of PM ₁₀ , PM _{2.5} , SO ₂ and NO _x 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 Ranchi and the SPCB/CPCB once in six months.	Ambient air quality is being monitored for the following four locations in the plant premises. <ol style="list-style-type: none"> 1. Near Mill dispatch shutter 2. Near Pickling dispatch shutter 3. Near Roll Shop shutter 4. Near HR Receiving Shutter <p>All parameters as per NAAQS, 2009 standards are being monitored and monitoring reports are being submitted to JSPCB on monthly basis and CPCB and MoEF&CC on six-monthly basis.</p> <p>Monitoring reports for all relevant parameters from Apr 2022 to Mar 2023 are attached in Annexure-I.</p>
iv	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 December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	Effluent treatment plants for the treatment of oily and acidic waste have been installed and are in operation. The excess treated effluent is being stored at the pond inside Bara Complex. The treated water is being used for dust suppression and other low end uses. <p>All applicable effluent parameters are being monitored and found within prescribed standards. Monitoring reports are being submitted to JSPCB on monthly basis and CPCB and MoEF&CC on six - monthly basis.</p>
v	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night-time).	High noise generating equipment has been provided with acoustic enclosures and silencer. However, closed cabins are provided for workers wherever required and people are encouraged to use ear plugs or earmuffs. <p>Monitoring reports for noise from Apr 2022 to Mar 2023 are attached in Annexure-I.</p>
vi	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Regular health surveillance of all the workers is being conducted half yearly and annually. <p>Occupational health surveillance has been conducted for permanent workers.</p>
vii	The company shall develop rainwater harvesting structures to harvest the rain-water for utilization in the lean season besides recharging the ground water table.	We have rejuvenated an abandoned ash pond inside CRM Bara Complex. The area comprises of two large and three small ponds and serves the purpose of rainwater harvesting. The pond capacity is 11,500 m ³ in an area of 1.6 Acres. Green Belt has been developed around the pond in an area of 0.4 acres with native species in the surrounding.

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viii	<p>The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.</p>	<p>Environment protection measures are being implemented according to measures and safeguard recommended in the EIA/ EMP report. Community development programs in surrounding areas are being implemented.</p> <p>Year wise expenditure for implementation of enterprise social commitment for in and around Jamshedpur are given below (in Rs crores):</p> <table border="1" data-bbox="794 555 1469 965"> <thead> <tr> <th>Interventions</th> <th>FY18</th> <th>FY19</th> <th>FY20</th> <th>FY21</th> <th>FY22</th> <th>FY23</th> </tr> </thead> <tbody> <tr> <td>Health</td> <td>2.3</td> <td>66.8</td> <td>1.5</td> <td>0.5</td> <td>0.6</td> <td>2.2</td> </tr> <tr> <td>Drinking Water</td> <td>0.0</td> <td>0.1</td> <td>0.1</td> <td>0.0</td> <td>0.0</td> <td>0.1</td> </tr> <tr> <td>Education</td> <td>0.9</td> <td>1.5</td> <td>1.8</td> <td>1.3</td> <td>3.0</td> <td>5.0</td> </tr> <tr> <td>Livelihood- Skill Development</td> <td>1.6</td> <td>1.6</td> <td>1.6</td> <td>1.5</td> <td>1.2</td> <td>3.9</td> </tr> <tr> <td>Sports</td> <td>4.4</td> <td>6.7</td> <td>4.7</td> <td>13.3</td> <td>12.3</td> <td>13.2</td> </tr> <tr> <td>Rural Infrastructure</td> <td>2.1</td> <td>-</td> <td>0.0</td> <td>1.4</td> <td>3.1</td> <td>5.3</td> </tr> <tr> <td>Environment</td> <td>2.1</td> <td>2.0</td> <td>2.7</td> <td>2.8</td> <td>4.0</td> <td>4.3</td> </tr> <tr> <td>Ethnicity</td> <td>2.7</td> <td>4.5</td> <td>5.3</td> <td>1.7</td> <td>4.8</td> <td>13.3</td> </tr> <tr> <td>Total</td> <td>16.1</td> <td>83.1</td> <td>17.7</td> <td>22.4</td> <td>29.02</td> <td>47.2</td> </tr> </tbody> </table>	Interventions	FY18	FY19	FY20	FY21	FY22	FY23	Health	2.3	66.8	1.5	0.5	0.6	2.2	Drinking Water	0.0	0.1	0.1	0.0	0.0	0.1	Education	0.9	1.5	1.8	1.3	3.0	5.0	Livelihood- Skill Development	1.6	1.6	1.6	1.5	1.2	3.9	Sports	4.4	6.7	4.7	13.3	12.3	13.2	Rural Infrastructure	2.1	-	0.0	1.4	3.1	5.3	Environment	2.1	2.0	2.7	2.8	4.0	4.3	Ethnicity	2.7	4.5	5.3	1.7	4.8	13.3	Total	16.1	83.1	17.7	22.4	29.02	47.2
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ix	<p>Requisite funds shall be earmarked towards capital cost and recurring cost/ annum for environment pollution control measures to implement the conditions stipulated by the MoEF&CC 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 Ranchi. The funds so provided shall not be diverted for any other purpose.</p>	<p>For environment protection, 28.24 Cr rupees spent as capital cost. Details are as below:</p> <table border="1" data-bbox="783 1070 1414 1485"> <thead> <tr> <th>Details</th> <th>Capital Cost</th> </tr> </thead> <tbody> <tr> <td>Pollution control measures (WWTP, ARP, fume extraction systems, etc.)</td> <td>12</td> </tr> <tr> <td>Provision of online environment monitoring equipment and display</td> <td>1.2</td> </tr> <tr> <td>Rejuvenation of water bodies</td> <td>6.94</td> </tr> <tr> <td>ARP environmental upgradation</td> <td>7.49</td> </tr> <tr> <td>PL rinse scrubber</td> <td>0.510</td> </tr> <tr> <td>Total capital cost(Cr.)</td> <td>28.14</td> </tr> </tbody> </table> <p>Recurring cost for upkeep the pollution control facilities till FY23 is 60.13 crores.</p>	Details	Capital Cost	Pollution control measures (WWTP, ARP, fume extraction systems, etc.)	12	Provision of online environment monitoring equipment and display	1.2	Rejuvenation of water bodies	6.94	ARP environmental upgradation	7.49	PL rinse scrubber	0.510	Total capital cost(Cr.)	28.14																																																								
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x	<p>A copy of clearance letter shall be sent by the proponent to concerned Panchnyat, 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 the proponent.</p>	<p>The copy of Clearance letter has been sent to District Commissioner, Block Development Officer and Jamshedpur Notified Area Committee vide our letter no. EMD/C-38/135,137,138/15 dated September 16, 2015.</p>																																																																						

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xi	<p>The project proponent shall upload the status of compliance of the stipulated environment 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 the MoEF&CC at Ranchi. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emission) 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>	<p>The six-monthly compliance reports of all existing environment clearances granted by Ministry are being submitted to JSPCB's regional office, Ministry's Regional office, Zonal office CPCB Kolkata and JSPCB Ranchi regularly and being submitted online through the respective website.</p> <p>The six-monthly compliance reports along the monitored data is also uploaded in the website https://www.tatasteel.com/corporate/our-organisation/environment/environment-compliance-reports/</p> <p>Monitoring data is being displayed near the main gate of the company in the public domain. Ambient air quality and Stack monitoring data display board placed at the main gate.</p>
xii	<p>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&CC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of the Ministry at Ranchi / CPCB shall monitor the stipulated conditions.</p>	<p>Six-monthly compliance reports of all existing environment clearances granted by Ministry along with environment monitoring reports are being submitted to JSPCB's regional office, Ministry's Regional office, Zonal office CPCB Kolkata and JSPCB Ranchi through email also the same is being uploaded on MoEF&CC website.</p>
xiii	<p>The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional office of the MoEF&CC at Ranchi by e-mail.</p>	<ul style="list-style-type: none"> • The environmental statement for each financial year in Form-V is regularly being submitted to the Jharkhand State Pollution Control Board. • Environment Statement for FY'22 has been submitted to JSPCB through hard and soft copies vide letter no. EMD/C-23/169 /22 dated September 22, 2022. • The environmental statement has also been uploaded on the company's website: https://www.tatasteel.com/corporate/our-organisation/environment/environment-compliance-reports/
xiv	<p>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 MoEF&CC at http://envor.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 Ranchi.</p>	<p>Environment clearance information/notice had been advertised in two local newspaper dated September 20, 2015 in English Paper and Hindi Paper viz The Telegraph and Prabhat Khabar.</p> <p>Copy of these have been sent to the Regional Office, MoEF&CC at Ranchi vide letter no. EMD/C38/136/15 dated September 16th, 2015.</p>

Compliance Status of Environmental Clearance of Cold Rolling Mill Complex (CRMC) Capacity Expansion (0.3 MTPA to 0.8 MTPA) (Ph-II) Jamshedpur, District East Singhbhum, Jharkhand vide MoEF&CC Letter no F.NO J-11011/22/2013-IA (II) I Dated on 15th Sept 2015

xv	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Financial closure and final approval of the project by Board of Tata Steel was done in April 2013.
xvi	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	We are abiding for implementation of all the above compliance conditions. The progress report of above conditions will be submitted on regular basis.
xvii	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	We will be in accordance with implementation of necessary additional conditions stipulated by the Ministry for compliance (if any).
xviii	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.	We are abiding by all the applicable legal requirements and Statutory clearances.

MONITORING & ANALYSIS REPORT

April 2022 to March 2023

**Cold Rolling Mill Complex
(CRMC), Jamshedpur**

**ENVIRONMENTAL MANAGEMENT DEPARTMENT
TATA STEEL LIMITED
JAMSHEDPUR**



Tata Steel Limited
Environmental Monitoring Report of CRM Bara
CRM BARA EFFLUENT QUALITY REPORT FROM APR 2022 to SEP 2022

	Parameter	Unit	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22
Drain at Gate No-2	pH	-	6.76	7.52	7.07	8.2	7.5	7.88
	Total Suspended solids	mg/L	<10	<10	<10	32	<10	<10
	Oil & Grease	mg/L	0.60	1.60	0.80	1.2	2	1.2
	Hexavalent Chromium, Cr+6	mg/L	0.01	0.08	0.02	0.08	0.04	0.05
	Biological Oxygen Demand, BOD	mg/L	17	26	26	7	6.7	10.7
	Chemical Oxygen Demand, COD	mg/L	170	155	216	25	14	48

NOTE

Standards applicable as per Environment (Protection) (Third Amendment) Rules, 2012 issued in Gazette of India Notification vide No.: G. S. R. 277 (E) dated March 31, 2012.

This test report is generated by NABL Accredited TATA STEEL LIMITED JSR EMD LAB having accreditation No.TC-8363 dated 21.02.2022 having validity till 20.02.2024.

Sr. Manager
Monitoring and Analysis

Head
Environment Monitoring, Testing &
Analysis (TSJ)

Tata Steel Limited
Environmental Monitoring Report of CRM Bara
CRM BARA EFFLUENT QUALITY REPORT FROM OCT 2022 to MAR 2023

	Parameter	Unit	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
Drain at Gate No-2	pH	-	7.8	7.8	8.3	8.1	7.9	8.4
	Total Suspended solids	mg/L	< 10	< 10	< 10	46	24	42
	Oil & Grease	mg/L	1.60	2.40	1.60	2.4	3.2	2.8
	Hexavalent Chromium, Cr+6	mg/L	0.05	< 0.05	0.05	< 0.05	< 0.05	< 0.05
	Biological Oxygen Demand, BOD	mg/L	9.2	11.1	7.5	12.4	7	6.4
	Chemical Oxygen Demand, COD	mg/L	40	52	22	75	41	20

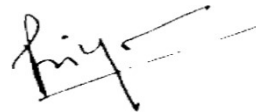
NOTE

Standards applicable as per Environment (Protection) (Third Amendment) Rules, 2012 issued in Gazette of India Notification vide No.: G. S. R. 277 (E) dated March 31, 2012.

This test report is generated by NABL Accredited TATA STEEL LIMITED JSR EMD LAB having accreditation No.TC-8363 dated 21.02.2022 having validity till 20.02.2024.



Sr. Manager
Monitoring and Analysis



Head
Environment Monitoring, Testing & Analysis (TSJ)

Tata Steel Limited
Environmental Monitoring Report of CRM Bara
AMBIENT AIR QUALITY REPORT FOR CRM BARA FROM APR 2022 to SEP 2022

Location	Parameter	UoM	Standard	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22
NEAR DISPATCH SHUTTER	Particulate Matter, PM ₁₀ ^s	µg/m ³	100	260.0	170.0	160.0	110	25	22
	Particulate Matter, PM _{2.5} ^s	µg/m ³	60	67.0	52.0	44.0	36	16	12
	Sulphur Dioxide (SO ₂) ^s	µg/m ³	80	5.4	14.0	9.0	9	19	8
	Nitrogen Dioxide (NO ₂) ^s	µg/m ³	80	31.0	34.0	39.0	27	40	16
	Carbon Monoxide (CO)	mg/m ³	2	0.32	0.28	0.30	0.32	0.3	0.28
	Ammonia (NH ₃) ^s	µg/m ³	400	76.6	82.0	78.9	122.6	65.2	32
	Ozone (O ₃) ^s	µg/m ³	180	11.2	20.7	7.5	16.9	8.7	8.8
	Nickel (Ni) ^s	ng/m ³	20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	Arsenic (As)	ng/m ³	6	NT	NT	NT	NT	NT	NT
	Lead (Pb) ^s	µg/m ³	1	0.11	0.11	< 0.1	< 0.1	< 0.1	< 0.1
	Benzene (C ₆ H ₆)	µg/m ³	5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Benzo alpha Pyrene (BaP)	ng/m ³	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
NEAR FIRE FIGHTING STATION	Parameter	UoM	Standard	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22
	Particulate Matter, PM ₁₀ ^s	µg/m ³	100	222.0	171.0	136.0	101	74	18
	Particulate Matter, PM _{2.5} ^s	µg/m ³	60	51.0	53.0	37.0	27	23	9
	Sulphur Dioxide (SO ₂) ^s	µg/m ³	80	8.0	12.0	11.0	14	29	9
	Nitrogen Dioxide (NO ₂) ^s	µg/m ³	80	42.0	40.0	31.0	47	38	15
	Carbon Monoxide (CO)	mg/m ³	2	0.41	0.31	0.34	0.31	0.34	0.31
	Ammonia (NH ₃) ^s	µg/m ³	400	65.0	93.2	74.4	68.7	17.8	29.6
	Ozone (O ₃) ^s	µg/m ³	180	5.5	17.8	18.6	4.3	11.4	4.9
	Nickel (Ni) ^s	ng/m ³	20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	Arsenic (As)	ng/m ³	6	NT	NT	NT	NT	NT	NT
	Lead (Pb) ^s	µg/m ³	1	0.09	0.10	< 0.1	< 0.1	< 0.1	< 0.1
	Benzene (C ₆ H ₆)	µg/m ³	5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo alpha Pyrene (BaP)	ng/m ³	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
NEAR ROLL SHUTTER	Parameter	UoM	Standard	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22
	Particulate Matter, PM ₁₀ ^s	µg/m ³	100	223.0	136.0	94.0	82	33	40
	Particulate Matter, PM _{2.5} ^s	µg/m ³	60	55.0	36.0	28.0	24	11	17
	Sulphur Dioxide (SO ₂) ^s	µg/m ³	80	7.3	14.0	7.0	11	16	10
	Nitrogen Dioxide (NO ₂) ^s	µg/m ³	80	33.4	35.0	23.0	26	41	32
	Carbon Monoxide (CO)	mg/m ³	2	0.38	0.36	0.33	0.29	0.32	0.3
	Ammonia (NH ₃) ^s	µg/m ³	400	112.5	74.9	26.5	75.2	103.1	31.4
	Ozone (O ₃) ^s	µg/m ³	180	12.9	6.8	6.9	9	19.8	5.7
	Nickel (Ni) ^s	ng/m ³	20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	Arsenic (As)	ng/m ³	6	NT	NT	NT	NT	NT	NT
	Lead (Pb) ^s	µg/m ³	1	0.11	0.11	< 0.1	< 0.1	< 0.1	< 0.1
	Benzene (C ₆ H ₆)	µg/m ³	5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo alpha Pyrene (BaP)	ng/m ³	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	

Note

Standards applicable as per National Ambient Air Quality Standards vide Notification No.: B-29016/20/90/PCI-L dated 18th November 2009.
 NT - Not Traced

\$This test report was generated by TATA STEEL LIMITED JSR EMD LAB having NABL Accreditation No.TC-8363.



Sr. Manager
 Monitoring and Analysis



Head
 Environment Monitoring, Testing & Analysis
 (TSJ)

Tata Steel Limited
Environmental Monitoring Report of CRM Bara
CONTINUOUS AMBIENT AIR QUALITY REPORT FOR CRM BARA FROM OCT 2022 to MAR 2023

Location	Parameter	UoM	Standard	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
NEAR DISPATCH SHUTTER	Particulate Matter, PM ₁₀ [§]	µg/m ³	100	45.0	145.0	269.0	251	286.49	230
	Particulate Matter, PM _{2.5} [§]	µg/m ³	60	18.0	45.0	68.0	67	62	61
	Sulphur Dioxide (SO ₂) [§]	µg/m ³	80	16.0	12.0	27.0	25	24.23	24.89
	Nitrogen Dioxide (NO ₂) [§]	µg/m ³	80	20.0	21.0	48.0	47	61.69	42.19
	Carbon Monoxide (CO)	mg/m ³	2	0.26	0.27	0.24	0.22	0.29	0.26
	Ammonia (NH ₃) [§]	µg/m ³	400	42.1	70.5	85.0	62	61.46	42.19
	Ozone (O ₃) [§]	µg/m ³	180	13.2	5.5	8.0	11	8.3	9.52
	Nickel (Ni) [§]	ng/m ³	20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	Arsenic (As)	ng/m ³	6	NT	NT	NT	NT	NT	NT
	Lead (Pb) [§]	µg/m ³	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Benzene (C ₆ H ₆)	µg/m ³	5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Benzo alpha Pyrene (BaP)	ng/m ³	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
NEAR FIRE FIGHTING STATION	Parameter	UoM	Standard	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
	Particulate Matter, PM ₁₀ [§]	µg/m ³	100	36.0	130.0	274.0	247	250.72	182
	Particulate Matter, PM _{2.5} [§]	µg/m ³	60	15.0	40.0	76.0	64	58	62
	Sulphur Dioxide (SO ₂) [§]	µg/m ³	80	14.0	12.0	27.0	19	21.44	22.53
	Nitrogen Dioxide (NO ₂) [§]	µg/m ³	80	19.0	23.0	51.0	54	54.12	39.14
	Carbon Monoxide (CO)	mg/m ³	2	0.29	0.37	0.31	0.12	0.31	0.28
	Ammonia (NH ₃) [§]	µg/m ³	400	59.8	67.0	97.0	67	71.88	36.98
	Ozone (O ₃) [§]	µg/m ³	180	7.5	6.4	15.0	12	11.72	9.52
	Nickel (Ni) [§]	ng/m ³	20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	Arsenic (As)	ng/m ³	6	NT	NT	NT	NT	NT	NT
	Lead (Pb) [§]	µg/m ³	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Benzene (C ₆ H ₆)	µg/m ³	5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo alpha Pyrene (BaP)	ng/m ³	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
NEAR ROLL SHUTTER	Parameter	UoM	Standard	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
	Particulate Matter, PM ₁₀ [§]	µg/m ³	100	51.0	148.0	272.0	272	235.99	181
	Particulate Matter, PM _{2.5} [§]	µg/m ³	60	20.0	45.0	64.0	64	64	47
	Sulphur Dioxide (SO ₂) [§]	µg/m ³	80	17.0	15.0	15.0	14.57	23.23	17.21
	Nitrogen Dioxide (NO ₂) [§]	µg/m ³	80	28.0	23.0	51.0	51.05	45.79	31.26
	Carbon Monoxide (CO)	mg/m ³	2	0.30	0.32	0.29	0.28	0.25	0.29
	Ammonia (NH ₃) [§]	µg/m ³	400	52.1	66.4	52.0	52.09	43.75	57.3
	Ozone (O ₃) [§]	µg/m ³	180	8.8	4.6	12.0	12.45	9.76	7.08
	Nickel (Ni) [§]	ng/m ³	20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	Arsenic (As)	ng/m ³	6	NT	NT	NT	NT	NT	NT
	Lead (Pb) [§]	µg/m ³	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Benzene (C ₆ H ₆)	µg/m ³	5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo alpha Pyrene (BaP)	ng/m ³	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	

Note

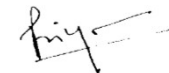
Standards applicable as per National Ambient Air Quality Standards vide Notification No.: B-29016/20/90/PCI-L dated 18th November 2009.

NT - Not Traced

§This test report was generated by TATA STEEL LIMITED JSR EMD LAB having NABL Accreditation No.TC-8363.



Sr. Manager
Monitoring and Analysis



Head
Environment Monitoring, Testing & Analysis
(TSJ)



Tata Steel Limited
Environmental Monitoring Report of CRM Bara
AMBIENT NOISE LEVEL MONITORING REPORT FOR CRM BARA FROM APR 2022 to SEP 2022

Sl.No.	Sampling Location	Result	Apr-22		May-22		Jun-22		Jul-22		Aug-22		Sep-22	
			Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
			dB(A) Leq		dB(A) Leq		dB(A) Leq		dB(A) Leq		dB(A) Leq		dB(A) Leq	
1	Entrance Main Gate		66.2	68.1	67.1	69.3	67.9	63.4	66.7	63.4	65.8	61.6	66.1	59.6
2	Circle Near Main Gate		62.3	69.4	60.2	67.4	68.0	64.0	69.2	67.4	68	63.7	67.6	60.1
3	Circle Near Gate No-1		64.2	70.8	61.4	68.0	69.2	64.3	68.4	61.3	67.2	61.4	68.1	59.2
4	Gate No-1		61.8	76.2	62.8	67.6	68.7	62.3	67.6	62.8	68.2	62.3	66.2	62.1
5	Gate No-2		62.7	72.6	66.1	70.1	70.0	62.6	71.2	64.6	70.4	65.2	70.8	58.5

NOTE

Standards applicable as per Noise Pollution (Regulation and Control) (Amendment) Rules, 2000 notified vide S. O. 1046 (E), dated 22-11-2000

This test report is generated by NABL Accredited TATA STEEL LIMITED JSR EMD LAB having accreditation No.TC-8363 dated 21.02.2022 having validity till 20.02.2024.

Sr. Manager
Monitoring and Analysis

Head
Environment Monitoring, Testing & Analysis (TSJ)



Tata Steel Limited
Environmental Monitoring Report of CRM Bara
AMBIENT NOISE LEVEL MONITORING REPORT FOR CRM BARA FROM OCT 2022 to MAR 2023

Sl.No.	Sampling Location		Oct-22		Nov-22		Dec-22		Jan-23		Feb-23		Mar-23	
			Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
			dB(A) Leq		dB(A) Leq		dB(A) Leq		dB(A) Leq		dB(A) Leq		dB(A) Leq	
1	Entrance Main Gate	Result	66.2	65.1	65.1	62.3	68.6	63.0	65.2	63.1	63.8	60.5	62.3	61.6
2	Circle Near Main Gate		68.7	67.4	66.9	61.8	69.2	64.4	60	58.4	65.1	61.3	64.1	62.4
3	Circle Near Gate No-1		65.3	63.2	67.2	63.7	68.1	62.8	58.3	59.6	67.2	63.8	63	62.5
4	Gate No-1		67.2	64.1	69.7	66.0	65.2	60.1	59.1	60.1	60.3	58.7	61.7	60.8
5	Gate No-2		68.9	65.4	68.4	62.8	64.3	59.8	61.1	60.6	62.4	58.4	62.4	61.5

NOTE

Standards applicable as per Noise Pollution (Regulation and Control) (Amendment) Rules, 2000 notified vide S. O. 1046 (E), dated 22-11-2000

This test report is generated by NABL Accredited TATA STEEL LIMITED JSR EMD LAB having accreditation No.TC-8363 dated 21.02.2022 having validity till 20.02.2024.

Sr. Manager
Monitoring and Analysis

Head
Environment Monitoring, Testing & Analysis (TSJ)



ANNEXURE-I

Tata Steel Limited
Environmental Monitoring Report of CRM Bara
Manual Stack Emission Monitoring Report from Apr 2022 to Sep 2022

Month	Location	UoM	Standard	Parameter	Result
Apr-22	ARP	mg/Nm ³	100	PM	12.4
	Pickling				9.1
	Mill				<5.0
	Boiler				6.0
	Shot Blasting				5.5
May-22	ARP				10.9
	Pickling				7.9
	Mill				<5.0
	Boiler				7.9
	Shot Blasting				5.9
Jun-22	ARP				6.8
	Mill				<5
	Boiler				7.4
	Shot Blasting				6.8
Jul-22	ARP				9.4
	Pickling				7.5
	Mill				<5.0
	Boiler				8.8
	Shot Blasting				5.5
Aug-22	ARP				7.0
	Pickling	10.5			
	Mill	<5			
	Boiler	7.4			
	Shot Blasting	<5			
Sep-22	ARP	5.6			
	Pickling	9.4			
	Mill	<5			
	Boiler	7.2			
	Shot Blasting	<5			

Note:

Standards applicable as per CTO, Ref No. JSPCB/HO/RNC/CTO-10350692/2022/109 Dated on 28-01-2022.

Sr. Manager
Env. Online Instruments

Head
Monitoring, Testing and Analysis



Tata Steel Limited
Environmental Monitoring Report of CRM Bara
Manual Stack Emission Monitoring Report from Oct 2022 to Mar 2023

Month	Location	UoM	Standard	Parameter	Result
Oct-22	ARP	mg/Nm ³	100	PM	4.9
	Pickling				5.3
	Mill				4.7
	Boiler				8.5
	Shot Blasting				13.0
Nov-22	ARP				6.8
	Pickling				7.3
	Mill				<5.0
	Boiler				7
	Shot Blasting				6.8
Dec-22	ARP				15.4
	Pickling				15.3
	Boiler				3.4
	Shot Blasting				3.7
Jan-23	ARP				5.4
	Pickling				5.1
	Mill				7.6
	Boiler				8.4
	Shot Blasting				5.3
Feb-23	ARP				18.4
	Pickling	15.0			
	Mill	-			
	Boiler	5.7			
	Shot Blasting	3.2			
Mar-23	ARP	7.2			
	Pickling	4.2			
	Mill	-			
	Boiler	8.2			
	Shot Blasting	8.53			

Note:

Standards applicable as per CTO, Ref No. JSPCB/HO/RNC/CTO-10350692/2022/109 Dated on 28-01-2022.

* After Commissioning of new pollution control devices at ARP (scrubber)

Shobhit Mishra

Manager- Air and Water
Monitoring

Prity

Head
Monitoring, Testing and Analysis



ANNEXURE-I

Tata Steel Limited
Environmental Monitoring Report of CRM Bara
Fugitive Emission Monitoring Report from Apr 2022 to Sep 2022

S.No.	Location	UoM	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22
1	Near RCPH Pump House	mg/m ³	0.46	0.41	0.35	0.27	0.31	0.5
2	Near Pickling Line Exit		0.48	0.56	0.52	0.31	0.29	0.65
3	Near Mills Stand		0.52	0.34	0.37	0.29	0.31	0.65
4	Near Mill Stand outside		0.56	0.78	0.54	0.31	0.54	0.43
5	1 Mtr. Away From Compressor # 1		0.93	0.24	0.93	0.54	0.87	0.53
6	1 Mtr. Away From Compressor # 2		0.8	0.82	1.02	0.65	0.56	0.49
7	1 Mtr. Away From Compressor # 3		1.03	0.34	1.03	0.56	0.52	0.41
8	1 Mtr. Away From Compressor # 4		0.89	0.9	1.02	0.52	0.4	0.5
9	Inside Room Compressor		0.79	0.58	1.05	0.4	0.34	0.53
10	Inside Boiler House		0.84	0.53	0.89	0.34	0.27	0.41
11	ARP Pump Room		0.82	0.44	0.41	0.27	0.32	0.57
12	Sticher Area		0.66	0.57	0.44	0.32	0.35	0.59
13	Rince Tank Area		0.68	0.45	0.51	0.35	0.3	0.72
14	Main Office		0.47	0.38	0.31	0.3	0.39	0.42
15	Near Gate # 1		0.79	0.55	0.7	0.39	0.36	0.48
16	Near Gate # 2		0.45	0.5	0.56	0.36	0.25	0.51
17	Coil Receiving Area		0.47	0.44	0.35	0.25	0.55	0.55

Note:

As per CTO, Ref No. JSPCB/HO/RNC/CTO-10350692/2022/109 Dated on 28-01-2022.

N/0- NOT IN OPERATION

Sr. Manager
Steel Making, CRM Bara & Tubes Division

Head
Monitoring, Testing and Analysis

ANNEXURE-I



Tata Steel Limited
Environmental Monitoring Report of CRM Bara
Fugitive Emission Monitoring Report from Oct 2022 to Mar 2023

S.No.	Location	UoM	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
1	Near RCPH Pump House	mg/m ³	0.4	0.8	0.8	0.70	0.50	0.80
2	Near Pickling Line Exit		0.5	0.8	0.7	1.00	0.60	0.50
3	Near Mills Stand		0.4	0.8	0.7	0.70	0.60	0.70
4	Near Mill Stand outside		0.7	0.8	0.7	0.70	0.60	0.60
5	1 Mtr. Away From Compressor # 1		N/O	0.7	0.7	0.70	0.70	0.50
6	1 Mtr. Away From Compressor # 2		0.3	0.7	0.7	0.60	0.80	0.60
7	1 Mtr. Away From Compressor # 3		0.3	0.7	N/O	0.70	0.70	0.60
8	1 Mtr. Away From Compressor # 4		0.3	0.7	0.6	0.70	0.70	0.50
9	Inside Room Compressor		0.4	0.7	0.6	0.70	0.70	0.60
10	Inside Boiler House		0.4	0.7	0.7	0.80	0.70	0.60
11	ARP Pump Room		0.5	0.9	N/O	1.40	0.70	0.70
12	Sticher Area		0.5	0.7	1.1	0.70	0.50	0.70
13	Rince Tank Area		0.7	0.8	0.7	0.70	0.60	0.70
14	Main Office		0.3	0.7	0.5	0.80	0.50	0.40
15	Near Gate # 1		0.4	0.7	0.7	0.50	0.60	0.70
16	Near Gate # 2		0.4	0.6	0.6	0.50	0.50	0.80
17	Coil Receiving Area		0.4	0.8	0.5	0.80	0.40	0.70

Note:

As per CTO, Ref No. JSPCB/HO/RNC/CTO-10350692/2022/109 Dated on 28-01-2022.


N/O- NOT IN OPERATION


Sr. Manager
Steel Making, CRM Bara & Tubes Division

Head
Monitoring, Testing and Analysis

TATA STEEL LIMITED
GROUNDWATER MONITORING - Done by NABL/ MoEF Certified Lab (APR-22 to SEP-22)

Month	Sampling Locations	pH	Temperature	Conductivity	Total Dissolved Solids	Total Suspended Solids	Alkalinity as CaCO ₃	Total Hardness as CaCO ₃	Calcium as Ca	Chloride as Cl ⁻	Sulphates as SO ₄ ⁻²	Nitrate Nitrogen as N	Nitrite Nitrogen as N	Fluorides as F ⁻
		--	oC	µMho/Cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Apr-22	Jugsalai Bore Water	7.1	30.0	1592.0	796.0	29.0	226.0	530.4	157.4	67.5	48.4	1.20	0.15	0.85
	Parvati GhatBore water	7.0	30.3	1920.0	960.0	25.0	254.0	546.6	162.3	81.4	70.0	1.30	0.18	0.69
	SonariBore water	7.2	30.1	1021.0	510.5	< 10	254.0	398.8	117.6	80.4	58.6	12.10	0.02	0.25
	Baganhattu Bore water	7.7	30.9	770.0	385.0	< 10	222.0	268.3	79.0	57.6	77.5	4.30	0.04	0.24
	Jemco Bore Water	7.7	30.9	540.0	270.0	20.0	112.0	115.8	33.4	49.6	75.6	0.90	0.02	0.22
May-22	SonariBore water	7.0	29.6	783.0	383.7	< 10	240.0	246.0	-	73.5	88.8	1.80	0.08	0.22
	Baganhattu Bore water	7.0	30.1	788.0	386.1	< 10	240.0	273.8	-	70.5	28.8	1.60	0.07	0.73
	Jemco Bore Water	7.3	25.4	740.0	362.6	39.0	136.0	182.5	-	54.6	57.7	2.60	0.07	0.51
	Jugsalai Bore Water	7.0	31.4	1349.0	661.0	< 10	202.0	369.0	-	153.9	39.6	BDL	0.07	0.41
	Parvati GhatBore water	6.9	32.0	1681.0	823.7	44.0	234.0	521.8	-	168.8	61.4	0.60	0.28	0.68
Jun-22	Jugsalai Bore Water	7.2	28.6	1005.0	492.5	< 10	370.0	246.0	73.1	78.4	54.0	2.60	0.06	0.58
	Parvati GhatBore water	7.3	27.9	1140.0	558.6	< 10	412.0	313.5	93.0	94.3	66.4	4.10	0.07	0.57
	Baganhattu Bore water	6.8	29.8	795.0	389.6	< 10	232.0	214.3	64.4	65.0	26.1	1.50	0.02	0.35
	Jemco Bore Water	8.0	30.1	463.0	226.9	13.0	96.0	69.4	20.7	54.0	51.6	2.40	0.04	0.43
	SonariBore water	6.9	29.2	954.0	467.5	< 10	264.0	317.4	94.6	84.0	105.2	11.90	0.09	0.58
Jul-22	Jugsalai Bore Water	7.1	27.7	1203.0	589.5	< 10	412.0	323.4	97.0	91.0	95.1	2.60	0.08	0.57
	Parvati GhatBore water	7.1	27.7	1071.0	524.8	< 10	400.0	252.0	73.9	83.0	66.3	1.70	0.05	0.53
	Jemco Bore Water	7.3	27.9	761.0	372.9	44.0	130.0	186.5	54.9	53.0	205.1	BDL	0.07	0.63
	SonariBore water	7.2	25.4	991.0	485.6	< 10	260.0	265.7	77.9	79.0	115.9	BDL	0.10	0.44
	Baganhattu Bore water	7.5	26.4	325.0	159.3	< 10	102.0	89.9	25.4	24.0	24.2	BDL	0.06	0.52
Aug-22	SonariBore water	7.1	27.9	1034.0	506.7	< 10	260.0	343.4	119.9	86.0	101.5	7.85	0.09	0.30
	Baganhattu Bore water	6.9	27.6	842.0	412.6	< 10	228.0	309.2	92.6	61.0	95.0	4.36	0.09	0.46
	Jemco Bore Water	7.3	28.5	708.0	346.9	48.0	114.0	216.9	64.4	55.0	159.6	0.49	0.09	0.31
	Jugsalai Bore Water	7.4	28.5	946.0	463.5	42.0	248.0	307.2	92.6	50.0	193.6	0.79	0.09	0.27
	Parvati GhatBore water	7.3	28.6	1302.0	638.0	40.0	290.0	387.5	114.3	68.0	172.8	0.75	0.09	0.36
Sep-22	Parvati GhatBore water	7.4	28.4	1217.0	596.3	< 10	356.0	236.9	69.2	110.0	182.3	3.70	0.06	0.40
	Jugsalai Bore Water	7.5	28.4	876.0	429.2	< 10	272.0	281.1	83.7	90.0	126.0	2.80	0.05	0.31
	Jemco Bore Water	7.0	27.9	678.0	332.2	56.0	130.0	198.8	58.8	52.0	277.1	3.00	0.05	0.32
	SonariBore water	7.0	27.6	889.0	435.6	< 10	240.0	291.2	86.1	69.0	70.1	11.20	0.07	0.22
	Baganhattu Bore water	7.0	27.0	768.0	376.3	< 10	242.0	281.1	83.7	59.0	98.1	4.10	0.06	0.45


Sr. Manager
 Monitoring and Analysis


Head
 Environment Monitoring, Testing & Analysis (TSJ)



TATA STEEL LIMITED
GROUNDWATER MONITORING - Done by NABL/ MoEF Certified Lab (OCT-22 to MAR-23)

Month	Sampling Locations	pH	Temperature	Conductivity	Total Dissolved Solids	Total Suspended Solids	Alkalinity as CaCO ₃	Total Hardness as CaCO ₃	Calcium as Ca	Chlorides as Cl ⁻	Sulphates as SO ₄ ⁻²	Nitrate Nitrogen as N	Nitrite Nitrogen as N	Fluorides as F ⁻
		--	oC	μMho/Cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Oct-22	Jugsalai Bore Water	7.2	27.7	1106.0	541.9	<10	266.0	231.9	68.4	55.0	139.1	6.22	<0.02	0.27
	Parvati GhatBore water	7.5	27.9	916.0	448.8	<10	348.0	282.3	84.5	47.0	191.4	5.89	<0.02	0.36
	SonariBore water	7.0	27.0	1027.0	503.2	<10	276.0	339.4	100.6	87.0	77.7	6.6	<0.02	0.24
	Baganhattu Bore water	6.8	26.9	737.0	361.1	<10	196.0	267.1	78.9	32.0	89.9	5.22	<0.02	0.51
	Jemco Bore Water	7.9	27.7	450.0	220.5	<10	100.0	69.1	20.4	49.6	244.6	<0.05	<0.02	0.34
Nov-22	SonariBore water	7.3	27.1	1030.0	504.7	<10	336.0	284.5	83.9	57.0	-	2.8	<0.02	0.32
	Baganhattu Bore water	8.1	28.2	692.0	339.1	<10	182.0	250.0	74.1	61.0	-	4.6	<0.02	0.37
	Jemco Bore Water	7.2	27.4	726.0	355.7	<10	102.0	69.6	19.6	82.0	-	0.02	0.05	0.27
	Jugsalai Bore Water	7.9	27.6	606.0	296.9	<10	160.0	231.7	67.6	47.0	-	5.12	0.01	0.37
	Parvati GhatBore water	7.8	27.3	872.0	427.3	<10	248.0	182.9	73.3	60.0	-	4.23	<0.02	0.33
Dec-22	SonariBore water	7.2	25.8	1003.0	491.5	<10	244.0	337.3	101.4	97.0	108.2	-	0.10	-
	Baganhattu Bore water	8.3	28.0	719.0	352.3	<10	140.0	297.2	91.1	55.0	126.1	-	0.09	-
	Jemco Bore Water	7.8	25.2	662.0	324.4	34.0	114.0	212.2	62.8	53.0	221.9	2.1	0.07	-
	Parvati GhatBore water	7.1	25.4	1549.0	759.0	<10	312.0	626.5	188.3	79.0	250.3	1.8	0.06	0.783
Jan-23	Jugsalai Bore Water	7.2	25.4	1265.0	619.9	<10	258.0	465.9	138.4	65.0	180.9	<0.05	0.08	0.479
	Jugsalai Bore Water	7.4	27.1	1052.0	515.5	<10	106.0	239.0	70.8	67.0	-	<0.05	0.06	-
	Parvati GhatBore water	7.1	26.9	1808.0	885.9	<10	110.0	301.2	89.3	75.0	-	1.2	0.09	-
	Baganhattu Bore water	7.2	24.9	712.0	348.9	<10	148.0	158.6	46.7	56.0	-	-	0.05	-
	Jemco Bore Water	8.2	26.5	429.0	210.2	38.0	118.0	216.9	64.4	50.0	-	-	<0.02	-
Feb-23	SonariBore water	7.5	25.0	699.0	342.5	<10	254.0	156.6	45.9	99.0	-	8.02	<0.02	-
	Jugsalai Bore Water	7.0	26.0	1914.0	937.9	16.0	104.0	224.9	66.0	64.0	192.0	-	-	0.43
	Parvati GhatBore water	7.0	26.0	1592.0	780.1	18.0	112.0	287.1	84.5	71.0	161.0	-	-	0.4
	Jemco Bore Water	7.8	26.1	716.0	350.8	12.0	122.0	202.8	57.9	49.0	151.0	-	-	0.41
	Baganhattu Bore water	7.4	27.5	720.0	352.8	<10	152.0	158.6	46.7	58.0	-	5.1	0.07	-
Mar-23	SonariBore water	7.1	27.5	901.0	441.5	<10	212.0	156.6	44.3	97.0	-	8.18	0.07	-
	SonariBore water	7.1	27.5	984.0	482.2	<10	252.0	108.4	32.1	82.0	216.5	0.89	0.03	0.269
	Baganhattu Bore water	6.8	27.1	737.0	361.1	<0.10	156.0	160.6	48.3	55.0	33.9	6.2	0.01	0.536
	Jemco Bore Water	8.4	26.6	357.0	174.9	28.0	128.0	50.2	14.5	56.0	20.9	<0.05	0.02	0.573
	Jugsalai Bore Water	6.9	27.0	1706.0	835.9	26.0	108.0	574.3	171.4	85.0	57.0	<0.05	<0.02	0.97
Parvati GhatBore water	7.0	26.6	1925.0	943.3	30.0	116.0	622.5	185.9	92.0	33.0	<0.05	<0.02	0.87	

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Sr. Manager
Monitoring and Analysis

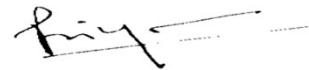
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Head
Environment Monitoring, Testing & Analysis (TSJ)

Month	Sampling Locations	Silica as SiO ₂	Iron as Fe	Hexavalent Chromium as Cr+6	Copper as Cu	Nickel as Ni	Zinc as Zn	Nitrogen (Ammonia) as N	Residual Chlorine as Cl	Sulphide as S ⁻²	Phenolic Compounds as Phenols	Free Cyanide
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Apr-22	Jugsalai Bore Water	10.80	0.19	< 0.01	0.02	0.14	-	0.05	-	< 0.02	0.06	0.02
	Parvati GhatBore water	14.80	0.48	< 0.01	0.03	0.11	-	0.02	-	< 0.02	0.04	0.03
	SonariBore water	22.60	0.02	< 0.01	0.02	0.11	-	0.03	0.7	< 0.02	0.04	0.02
	Baganhattu Bore water	36.50	0.19	< 0.01	0.03	0.12	-	0.05	0.7	< 0.02	0.09	0.03
	Jemco Bore Water	9.95	0.19	< 0.01	0.04	0.09	-	0.05	1.06	< 0.02	0.10	0.03
May-22	SonariBore water	46.65	0.04	0.05	0.020	0.03	0.1	-	< 1.0	< 0.02	0.01	0.02
	Baganhattu Bore water	16.45	0.06	0.07	0.010	0.04	0.12	-	< 1.0	< 0.02	0.02	0.02
	Jemco Bore Water	28.50	0.62	0.06	0.010	0.20	0.12	0.01	< 1.0	< 0.02	0.03	0.03
	Jugsalai Bore Water	32.15	0.28	< 0.01	0.010	0.07	0.16	0.11	< 1.0	< 0.02	< 0.01	0.04
	Parvati GhatBore water	40.10	0.29	< 0.01	0.020	0.06	0.15	0.06	< 1.0	< 0.02	< 0.01	0.04
Jun-22	Jugsalai Bore Water	15.50	0.21	0.02	0.020	< 0.10	0.48	0.04	< 1.0	< 0.02	0.04	0.03
	Parvati GhatBore water	17.15	0.26	< 0.02	0.020	< 0.10	0.07	0.19	< 1.0	< 0.02	0.03	0.04
	Baganhattu Bore water	47.25	0.05	0.03	0.020	< 0.10	0.49	0.05	< 1.0	< 0.02	0.02	0.007
	Jemco Bore Water	7.40	0.56	0.03	0.020	< 0.10	0.51	0.03	< 1.0	< 0.02	0.02	0.006
	SonariBore water	3.00	0.03	0.03	0.040	< 0.10	-	0.02	< 1.0	< 0.02	0.02	0.01
Jul-22	Jugsalai Bore Water	39.75	0.04	0.02	0.010	0.54	0.56	0.33	< 1.0	BDL	0.02	0.03
	Parvati GhatBore water	34.75	0.05	0.03	BDL	0.52	0.6	0.19	< 1.0	BDL	0.01	0.02
	Jemco Bore Water	26.20	0.01	0.03	BDL	0.11	0.52	1.24	< 1.0	BDL	0.01	0.02
	SonariBore water	36.20	0.02	0.02	0.020	0.36	0.13	0.11	< 1.0	BDL	0.02	0.02
	Baganhattu Bore water	47.05	0.01	0.02	0.010	0.03	0.14	-	< 1.0	BDL	0.03	-
Aug-22	SonariBore water	30.60	0.03	0.03	0.020	< 0.10	0.11	0.05	< 1.0	0.01	0.02	0.03
	Baganhattu Bore water	46.10	0.04	0.02	0.060	< 0.10	0.05	0.02	< 1.0	0.01	0.02	0.01
	Jemco Bore Water	6.95	0.05	0.02	0.050	0.02	0.06	0.05	< 1.0	0.01	0.04	0.03
	Jugsalai Bore Water	3.01	0.06	0.03	0.010	0.01	0.07	0.06	< 1.0	0.01	0.02	0.02
	Parvati GhatBore water	3.38	0.02	0.02	0.020	< 0.10	0.05	0.07	< 1.0	0.00	0.03	0.02
Sep-22	Parvati GhatBore water	14.9	0.01	0.03	0.020	0.010	0.05	0.04	< 1.0	< 0.02	0.03	0.005
	Jugsalai Bore Water	16.9	0.04	0.02	0.010	0.020	0.07	0.07	< 1.0	< 0.02	0.02	0.002
	Jemco Bore Water	41.1	0.27	0.022	0.010	< 0.10	0.54	0.05	< 1.0	0.01	0.02	0.006
	SonariBore water	31.8	BDL	0.01	BDL	< 0.10	0.12	0.07	< 1.0	0.00	0.04	0.007
	Baganhattu Bore water	53.2	0.01	0.021	BDL	< 0.10	0.06	0.06	< 1.0	0.01	0.01	0.03



Sr. Manager
Monitoring and Analysis




Head
Environment Monitoring, Testing & Analysis (TSJ)

TATA STEEL LIMITED
GROUNDWATER MONITORING - Done by NABL/ MoEF Certified Lab (OCT-22 to MAR-23)

Month	Sampling Locations	Silica as SiO ₂	Iron as Fe	Hexavalent Chromium as Cr+6	Copper as Cu	Nickel as Ni	Zinc as Zn	Nitrogen (Ammonia) as N	Residual Chlorine as Cl	Sulphide as S ⁻²	Phenolic Compounds as Phenols	Free Cyanide
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Oct-22	Jugsalai Bore Water	17.6	0.03	< 0.05	0.02	0.76	0.03	0.05	< 1.0	< 0.10	< 0.02	0.01
	Parvati GhatBore water	14.7	0.02	< 0.05	0.02	< 0.10	0.02	0.03	< 1.0	< 0.10	< 0.02	0.01
	SonariBore water	16.28	<0.05	< 0.05	< 0.10	< 0.10	0.08	0.02	< 1.0	< 0.10	< 0.02	0.01
	Baganhattu Bore water	15.53	<0.05	< 0.05	< 0.10	< 0.10	0.08	0.02	< 1.0	< 0.10	< 0.02	0.01
	Jemco Bore Water	17.85	<0.05	< 0.05	< 0.10	< 0.10	0.46	0.01	< 1.0	< 0.10	< 0.02	0.01
Nov-22	SonariBore water	24.5	0.05	0.04	0.02	0.02	0.06	0.01	< 1.0	< 0.10	0.03	0.02
	Baganhattu Bore water	23.1	0.04	0.02	0.02	0.02	0.06	0.27	< 1.0	0.07	0.02	0.02
	Jemco Bore Water	17.1	0.96	0.03	0.04	0.02	0.41	0.03	< 1.0	0.06	0.02	0.02
	Jugsalai Bore Water	25.35	0.04	< 0.05	0.03	0.65	0.02	0.12	< 1.0	< 0.10	0.03	0.06
	Parvati GhatBore water	19	0.03	< 0.05	0.02	0.42	0.02					
Dec-22	SonariBore water	20.9	0.02	< 0.01	< 0.05	0.25	< 0.05	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	Baganhattu Bore water	23.75	0.01	< 0.01	< 0.05	0.11	0.06	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	Jemco Bore Water	18.6	0.4	< 0.01	< 0.05	0.18	0.07	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	Parvati GhatBore water	17.6	0.07	< 0.01	< 0.05	0.12	< 0.05	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	Jugsalai Bore Water	16.45	0.05	< 0.01	< 0.05	0.18	0.06	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
Jan-23	Jugsalai Bore Water	22.2	0.3	< 0.05	< 0.05	< 0.10	< 0.05	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	Parvati GhatBore water	24.8	0.21	< 0.05	< 0.05	< 0.10	< 0.05	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	Baganhattu Bore water	23.1	< 0.05	< 0.05	< 0.05	< 0.10	< 0.05	< 1.0	< 1.0	-	< 0.10	< 0.1
	Jemco Bore Water	-	< 0.05	< 0.05	< 0.05	< 0.10	< 0.05	< 1.0	< 1.0	< 0.10	-	< 0.1
	SonariBore water	23.9	< 0.05	< 0.05	< 0.05	< 0.10	< 0.05	< 1.0	< 1.0	-	< 0.10	< 0.1
Feb-23	Jugsalai Bore Water	-	-	-	-	-	-	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	Parvati GhatBore water	-	-	-	-	-	-	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	Jemco Bore Water	-	-	-	-	-	-	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	Baganhattu Bore water	-	-	-	-	-	-	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
	SonariBore water	-	-	-	-	-	-	< 1.0	< 1.0	< 0.10	< 0.10	< 0.1
Mar-23	SonariBore water	0.06	0.034	<0.05	0.015	0.022	0.092	<1.0	<1.0	<0.10	<0.10	< 0.1
	Baganhattu Bore water	0.51	0.036	<0.05	0.012	0.001	0.075	<1.0	<1.0	<0.10	<0.10	< 0.1
	Jemco Bore Water	0.19	0.663	<0.05	0.011	0.000	0.030	<1.0	<1.0	<0.10	<0.10	< 0.1
	Jugsalai Bore Water	0.13	0.555	<0.05	0.011	0.004	0.097	<1.0	<1.0	<0.10	<0.10	< 0.1
	Parvati GhatBore water	0.11	0.388	<0.05	0.017	0.005	0.121	1.07	<1.0	<0.10	<0.10	< 0.1



Sr. Manager
Monitoring and Analysis



Head
Environment Monitoring, Testing & Analysis (TSJ)

Action Plan to Reduce Solid Waste at CRM Bara

CRM Complex Bara is located besides Tata BlueScope Steel Ltd. & TSDPL at Bara, Jamshedpur, Singhbhum district.

Process facilities at CRM Bara

Cold Rolling Mill Complex Bara mainly comprises of

- a) Pickling line
- b) Acid Regeneration Plant
- c) Reversing Cold Rolling Mill
- d) Skin pass mill
- e) Inspection line and Parting line
- f) Utilities

Solid waste generated at CRM Bara is 100% recycled through in-house utilization in Tata Steel and some being external utilization by recyclers. Generation of Solid waste is being reduced by improving plant operation & efficiency.

Details of solid wastes generated, and utilization are as below:

1. **Iron Oxide from Acid Regeneration Plant:** During recovery of Hydrochloric Acid from waste pickle liquor, Iron oxide is generated as a by-product. Iron oxide generated from ARP is sent to recyclers through Tata Steel- Industrial By-product Management Department (IBMD). After processing, it is being used in paint and pigment industries. In FY23, 3037.36 tons of Iron Oxide were generated which was 100% utilized through external consumption by Recyclers.
2. **Re-melting Scrap:** During coil processing both sides of HR coils are trimmed to obtain correct quality of products. Generated re-melting scraps are used internally for the purposes of scrap charging in our LD shops for steel making process at Tata Steel Main Works. In FY23, 8732.61 tons of Re-melting Scrap were generated which was 100% utilized through internal consumption in the manufacturing process of Tata Steel.
3. **Pup Coil:** During pickling process defects are generated due to line stoppages. To produce good quality of product, pup coils are being generated. Pup coils are processed as cut-to-length sheet and it is sold by IBMD to external customers. In FY23, 17005.58 tons of Pup Coil were generated which was 100% utilized through external consumption by Recyclers.
4. **Metallic Straps:** HR coils are bind with the help of straps. During processing of HR coils straps are being cut and discarded. Discarded straps are collected and being sold to external recyclers through IBMD. In FY23, 99.84 tons of Metallic Straps were generated which was 100% utilized through external consumption by Recyclers.

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SN	Name	Questions	Action Plan given in EIA	Present status of compliance												
01	Shri Suresh Sonthalia President, Singhbhum Chamber of Commerce	<p>We welcome the expansion of the project. People will get employment. Region will be developed. Permission for expansion of plant should be granted. Company is doing good work in the region.</p> <p>No accident took place here for the last two to three years. It is also well appreciated that Tata Steel is spending a good amount on environment front. We welcome the decision of plant expansion.</p>	Focus will be made on environment compliance.	CRM Bara plant is running with a focus on environmental compliance.												
02	Shri Pavan Tiwari, Bhuiadih	We welcome the expansion of the project. It is a welcoming step that the company is expanding. But the management has to pay special attention for the development of surrounding region. Attention may be given on basic problems of local people.	CSR Committee has been formed and action plan is under preparation.	Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd.												
03.	Shri Bharat Vasani Vice-President, Singhbhum Chamber of Commerce	We welcome the expansion of the project. Whatever the plans are made by the company to ensure that there should not be any pollution effect on environment with expansion of plant. Company has to spend on environmental protection as per its plan so that the environment can be protected.	Action plan prepared and will be implemented accordingly.	<p>For environment protection, 16 Cr spent as capital cost. Details are as below:</p> <table border="1"> <thead> <tr> <th>Details</th> <th>Capital Cost</th> </tr> </thead> <tbody> <tr> <td>Provision of online environment monitoring equipment and display</td> <td>1.06</td> </tr> <tr> <td>Rejuvenation of water bodies</td> <td>6.94</td> </tr> <tr> <td>ARP environmental upgradation</td> <td>7.49</td> </tr> <tr> <td>PL rinse scrubber</td> <td>0.510</td> </tr> <tr> <td>Total capital cost (Cr.)</td> <td>27.8</td> </tr> </tbody> </table>	Details	Capital Cost	Provision of online environment monitoring equipment and display	1.06	Rejuvenation of water bodies	6.94	ARP environmental upgradation	7.49	PL rinse scrubber	0.510	Total capital cost (Cr.)	27.8
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04.	Shri Ramashray Prasad, INTUC	Company has to expand. Company should be developed. People should also get employment. Civic amenities should be developed in the surrounding area. Management should also focus and share information about how many permanent and temporary employees/ workers will be required.	Issues are being taken care under CSR activities.	Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd. More than 50% employment has been given to local people.
05.	Shri Dev Sharan Singh Govindpur	Employment opportunities will increase with the expansion of the plant. Employment should be provided to the citizens/ locals residing within 10 km radius. Infrastructural facilities like drinking water, medical facilities for good health and other basic amenities should be provided by the company. Special attention should be given on environment and pollution.	Various environment protection measures have been taken by the company in the plant as per environment norms. Other issues have been taken care by CSR activities.	Various environment protection measures have been taken by the company such as: <ul style="list-style-type: none">• Fume extraction system including scrubber in pickling line.• Bag filter in shot blasting machine.• Roof-top ventilation system.• Water sprinkling and mechanized sweeping machine• Effluent treatment plants for the treatment of oily and acidic waste and• STP is installed and operational for treatment of domestic water.• Rejuvenation of water bodies• Green belt development in and around plant. Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd. More than 50% employment has been given to local people.

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06.	Shri Sonaram Bothra	Employment should be provided to local unemployed people. Priority should also be given in employment for SC and ST people. Management should give attention on poor people. We are not provided any facility.	Local employment has been given on top priorities as per their skill during construction work.	More than 50% employment has been given to local people.
07.	Shri Gunjan Yadav, Sitaramdera	Due to proposed expansion the traffic may increase. Cutting of trees may be involved. Development of green belt is recommended. Public pumps/ taps should be arranged in local areas by the company/ Unit. We will oppose the plant if water is not available. There is a tribal school in Babudih where 450 children study. Management should also pay attention on this. We are not against for the expansion of the plant. But at the same time company should also give attention on basic problems of local people.	Plantation has been done in & around premises (More than three thousand). Other issues have been considered in CSR activities.	<ul style="list-style-type: none"> • Roads at the Bhuiyadih area are being widened. Other issues had been undertaken under CSR activities. • Green belt at CRM Bara complex has been developed as per CPCB guidelines. • Approx. 3.5 Ha area in and around plant is under plantation which is more than 33% of the plant area. • We have planted 13120 no. of samplings in the above area till date. • We have developed approx. 5m wide area of plantation around the plant as per CPCB guidelines. • Density of plantation > 3000 plants/Ha which is more than CPCB guidelines. • Public pumps/taps have been provided at Bhuiyadih and Babudih.
08.	Shri Chandra Sekhar Mishra, Housing Development Committee	We welcome the expansion of the project. The facilities which were provided by Tata Steel 20years back, are not made available today. The management should provide infrastructure facilities like electricity, water, medical, education etc. at least in 5 kms radius area instead of 10 kms radius.	Issues are taken care under CSR activities.	<ul style="list-style-type: none"> • Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd.

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09.	Shri Krishna Prasad Swarnakar, Babudih Basti	Babudih Basti is located in 1 km radius of the company. Waste is dumped by the plant in this area. Basic amenities should be provided to the citizens residing in 10 km radius. Pollution has increased a lot by which people are becoming sick.	Environment management plan under implementation will be strengthened for proposed expansion also.	Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd. Various environment protection measures have been taken by the company such as: <ul style="list-style-type: none">• Fume extraction system including scrubber in pickling line.• Bag filter in shot blasting machine.• Roof-top ventilation system.• Water sprinkling and mechanized sweeping machine• Effluent treatment plants for the treatment of oily and acidic waste and• STP is installed and operational for treatment of domestic water.• Rejuvenation of water bodies• Green belt development in and around plant.
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10.	Shri Sudhir Singh, Secretary Singhbhum Chamber of Commerce	Expansion of plant is a good thing and we welcome the same. Sewage discharge is released without treatment into Kharkai and Swarnarekha rivers. This should be stopped immediately. Plant should be operated with pollution free environment.	Company will comply with CPCB norms	Various environment protection measures have been taken by the company such as: <ul style="list-style-type: none">• Effluent treatment plants for the treatment of oily and acidic waste and• STP is installed and operational for treatment of domestic water.• Rejuvenation of water bodies• Green belt development in and around plant.• Fume extraction system including scrubber in pickling line.• Bag filter in shot blasting machine.• Roof-top ventilation system.• Water sprinkling and mechanized sweeping machine are used for dust suppression.
11.	Shri Kaushal Prasad	We welcome the expansion of the plant. Employment will be generated after the expansion. Our income will increase. Our living standards will also improve. Plant Management should also give attention on basic problems of local people. Drinking water, education, medical and training programmes for women for their self-development etc. should be provided.	Issues are taken care under CSR activities. Local employment has been given on top priorities as per their skill.	Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd. More than 50% employment has been given to local people.

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12.	Shri Navin Kumar Bagunnagar	Since Tata steel prefers global tender, contractors from other states will get their work with outside workers. This policy should not work out. The presentation shown by the company is fully false one. We are not opposing expansion of the plant, but expect that the quality of life of contract workers should also be improved.	Local area will be developed under CSR.	Basic needs such as Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd. More than 50% employment has been given to local people.
13.	Shri Shankar Soren Baridih	The entire area where plant is established belongs to Tribal. Management should aware and concentrate on the welfare of tribals. Training should be imparted to local youth. Facilities like water education, and health should be provided. If management gives attention on these issues, I don't have any objection for expansion of the plant. We are in favour of this plant.	A committee involving company and knowledgeable / qualified persons will be constituted to solve problems	Basic needs such as Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd.
14.	Shri Jeevan Kumar Sahu	I am in favour of expansion of the plant. Company has done a wonderful thing by afforestation work. Water, Electricity, Education and other works which will be beneficial for the public should be done.	CSR committee has been formed and action plan is under preparation.	Basic needs such as Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd.
15.	Shri Ram Sahni Babudih	Fishes (aquatic) are getting killed due to the acid water discharged from Tata Steel Company. River water is also contaminated leading to skin irritation. Polluted water should be controlled. Facilities like drinking water, education, electricity and medical facilities for health should be provided.	No wastewater is being discharged into the rivers. Environmental control measure has been already in place.	No wastewater is being discharged into the rivers. All the effluents generated in plant are treated at Effluent treatment plant and domestic waste is treated in Sewage treatment plant. Environmental control measure has been already in place. Basic needs are undertaken under CSR activities.

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16.	Shri Goutam Lohar Bagunhatu	Water from the company is discharged in the river. This should be stopped. Employment is given to the outside people. Local people should get employment. Water, electricity, education and better medical facilities for good health should be provided. Nobody knows where women are being trained.	Wastewater treatment plant is already in place. No water discharge from our premises. Experts team study is under progress.	All the effluents generated in plant are treated at Effluent treatment plant and domestic waste is treated in Sewage treatment plant. Basic needs such as Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd.
17.	Shri P.N.Dixit President, Builders Association	Expansion of the plant should invariably take place. I have been observing and experiencing for the last 52 years that whatever work done by Tata Steel was for the welfare of local people. Plant expansion should take place by paying special attention on environment.	Environment control measure has been already in place.	Environment pollution control measures are already in place. Various environment protection measures have been taken by the company such as: <ul style="list-style-type: none">• Fume extraction system including scrubber in pickling line.• Bag filter in shot blasting machine.• Roof-top ventilation system.• Water sprinkling and mechanized sweeping machine• Effluent treatment plants for the treatment of oily and acidic waste and• STP is installed and operational for treatment of domestic water.• Rejuvenation of water bodies• Green belt development in and around plant.

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18.	Shri Vijay Khan	Most of the people from the region are in favour of the expansion of plant. The expectations of people from the company management are not fulfilled by the unit. Contract labourers of Tata group of companies are not getting medical facility in MGM Hospital. One ITI should be opened for the local youth. Water, Electricity, Technical arrangements for higher education, and other basic facilities should be taken care. I am in favour of expansion of the plant.	CSR committee has been formed and action plan is under preparation.	Basic needs such as Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd.
19.	Shri Beli Bodhanwala Social worker Jamshedpur	Here everybody wish for the expansion of the plant. I too want the same. Proper planning should be done for controlling pollution effects on environment. Local problems should be resolved under CSR. Attention should be paid for improvement of standard of living.	CSR committee has been formed and action plan is under preparation.	Local problems are being resolved under CSR. Basic needs such as Health, Sanitation (Domestic Toilets), Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd. Environment pollution control measures are already in place.
20.	Shri Ranjit Bhattarcharya , Jamshedpur	Acid water released from the unit should be avoided. Traffic will also be a problem which should also be addressed. I am in favour of expansion of the plant.	Wastewater treatment plant is already in place. No water discharge from our premises. Experts team study is under progress.	No acid water is discharged from the unit/plant. All the effluents generated in plant are treated at Effluent treatment plant and domestic waste is treated in Sewage treatment plant. Roads at the Bhuiyadih and other area are being widened to cater increased traffic load.
21.	Shri Mahesh Santhalia, Jamshedpur	I am in favour of expansion of the plant. There should be control/ stoppage of discharge of polluted water from the plant. Drinking water facility should be provided for the local/ Basti people. Proper arrangement should be done to ensure that there is no pollution from the unit/plant.	Environment control measure has been already inplace.	Environment control measures are already in place. All the effluents generated in plant are treated at Effluent treatment plant and domestic waste is treated in Sewage treatment plant. Drinking water facility has been provided to local people.
22.	Smt. Santoshi Devi Babudih	Water facility should be provided in Babudih Basti. Even if a Tap is arranged for the public in the road side will also help to some extent.	CSR committee has been formed and action plan is under preparation.	Water facility has been provided in Babudih Basti under CSR activities.
23.	Shri Anand Bihari Dubey Bagunnagar	Earlier also Public Hearing was conducted here in the same place. Assurance was also given for solving / avoiding problems of local	A committee will be constituted with the company representatives	<ul style="list-style-type: none"> Local problems are being resolved under CSR. Basic needs such as Health, Sanitation (Domestic Toilets),

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		<p>people. The presentation which was shown by the management is fully false. There were five-five ponds here where this public hearing is being conducted. Now the ponds have been filled with slag. Due to this, the water levels at Bagunnagar, Bagunhatu, Babudih and Baridih Basti have gone down. There were thousands of trees. Ponds (Talab) were filled and all big-big trees were cut. The water levels here have gone down to 600-700 feet.</p> <p>Company management should arrange public water taps in the region. The polluted water from the company is directly sent to rivers. Outsiders have been provided works in the name of global tenders. I am not against the expansion of the plant. But the problems of the region should be given more concentration. A good school for the children, employment for the youth, drinking water in the surrounding areas, electricity, medical facilities, training for women for their self-employment, etc. should be provided. It should be ensured that there will not be any pollution impact on environment. There will be acute opposition if the management neglects the local problems and expands the plant.</p>	<p>considering view of local people. Efforts will be made to solve the problems in the surrounding areas. Special attention will be given for the community development activities. Direct and indirect employment opportunities will be provided.</p>	<p>Drinking Water, Education, Livelihood (Skill Development), Livelihood (Agriculture), Sports, Infrastructure & Urban Services, Environment and Ethnicity are undertaken under CSR activities of Tata Steel Ltd.</p> <ul style="list-style-type: none"> • Work for rejuvenation of ponds completed which also cater rain-water harvesting. • Green belt in and around plant has been developed. 10850 no. of samplings have been planted till date. • No polluted water is discharged from the unit/plant. All the effluents generated in plant are treated at Effluent treatment plant and domestic waste is treated in Sewage treatment plant. • More than 50% employment has been given to local people.
24.	Shri Feroz Ali Khan Dhatakidih	I am in favour of the expansion of the plant.		
25.	Shri A.K.Srivatsava	We all want that the plant should be expanded. Management also should concentrate on the local problems. Chances will increase for improving employment opportunities with the expansion of the company during this recession period.	Employment opportunities will be provided.	More than 50% employment has been given to local people.