

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 Shinghbhum, Jharkhand vide MoEF Letter no J-11011/199/2007-IA.II (I) dated August 7, 2007

| Sl No.                      | Compliance Conditions   | Compliance Status   |
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| <b>Specific Conditions:</b> |   |   |
| 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>It has been stated that Fume extraction system including scrubber, Fume extraction ductwork and fan has been installed in Pickling line. Ventilation system has also been installed.</p> <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. Components of this system are basically the scrubber, fan, ductwork and controls.</p> |
| ii                          | Total water requirement from M/s JUSCO is about 1712 m <sup>3</sup> /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>It has been stated that the plant has been designed to limit water requirements from JUSCO within 1,712 m<sup>3</sup>/day.</p> <p>At present, the water use is varied from 912 to 1107 m<sup>3</sup>/day. Ground water is not being used for any purpose. Effluent treatment plant has been installed. Treated effluent is being used for greenbelt development. Sewage treatment plant has also been installed.</p>                       |
| 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>It has been stated that about 982 Tons of Iron Oxide generated from Oct 2014 to Mar 2015 and sold to Tata Pigments and other outside authorized vendors.</p> <p>Other generated hazardous oily sludge (oily Scum) about 517 Tons and used oil about 1.6 Tons Oct 2014 to Mar 2015) is recycled by authorized recyclers.</p>  |

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| 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.  | Green Belt development in and around the plant. So far 1.49 ha area has been planted with 3250 Nos of saplings (Trees and Shrubs) such as <i>Alistonia Scholaris</i> , <i>Lagestromia Flosregia</i> , <i>Silver Oak</i> , <i>Juniperous Chinensis</i> , <i>Ficus Benjamina</i> , <i>Jacaranda Mimosifolia</i> , <i>Azadirachta indica</i> , <i>Terminalia arjuna</i> , <i>Bauhinia variegata</i> , <i>Terminalia tomentosa</i> etc. 6250 Nos of trees & shrubs has been proposed to development greenery in 2.5 ha area. And 3250 Nos of saplings has been already planted with more than 85% survival rate. |
| v  | Prior approval from State/Central Govt. shall be obtained for the use of forest land, if any  | No forest land is required for the project. Therefore this condition is not applicable.  |
| vi | Permission from the State Government shall be obtained regarding impact of the proposed project on the Dalma Reserve Forest.  | We had 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.   |
| 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. | It has been stated that an amount of Rs 13.5 Crores has been Spent on environmental and pollution control measures that including utilities, Fume Extraction scrubber, Acid Regeneration Plant and Effluent Treatment Plant etc.<br><br>This year (from April 2014 to March 2015) to around 1.55 crores has been spent on environment protection.  |

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| <b>General Conditions:</b> |  |   |
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| i.                         | The project authorities shall strictly adhere to the stipulations made by Jharkhand State Pollution Control Board (Jharkhand SPCB) and the State Government.   | All the conditions of the JSPCB are being complied.<br>Renewal of Consent to Operate has been granted by JSPCB which is valid up to 30.09.15 and the project has applied for renewal in 2011, 2012, and 2013 with the time prescribed.<br>We had submitted online application (Nos. 65519) for renewal of Consent for the 5 years i.e till 30/09/2019.  |
| ii.                        | No further expansion or modifications in the plant shall be carried out without prior approval of MoEF.  | We had applied for expansion from the existing capacity of 3.0 lakh TPA to 8.0 lakh TPA in Jan 2013 and EAC has recommended for EC in the meeting in January 2015.  |
| 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. | It has been stated that control measures have been incorporated in the design of various process units and installed to meet the emission norms notified by MoEF. As per the monitoring data during the period from April 2014 to Mar 2015, the emissions from the stacks have been found within prescribed limits.<br>During the above period the PM emission value found in Mill Fume Exhaust (Demister APC) was in the range of 8.45 to 13.2 mg/Nm <sup>3</sup> . PM emission value found in Boiler Stack was in the range of 8.4 to 11.3 mg/Nm <sup>3</sup> . PM emission value found in ARP stack was in the range of 12.4 to 46.2 mg/Nm <sup>3</sup> . PM emission value found in Pickling line fume exhaust was in the range of 10.5 to 28.4 mg/Nm <sup>3</sup> . Alarms have been provided in all the units to indicate emission level. |

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| 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 <sub>2</sub> and NO <sub>x</sub> 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. | Ambient air quality monitoring stations has been identified at four locations in the plant premises.<br><ol style="list-style-type: none"> <li>1. Near Mill dispatch Shutter</li> <li>2. Near Pickling dispatch shutter</li> <li>3. Near Roll Shop shutter</li> <li>4. Near HR Receiving Shutter</li> </ol> As per the monitoring data during the period from April 2014 to Mar 2015, the ambient air quality within the plant premises have been found within prescribed limits.<br>PM10 ranges from 51.4 to 84.5 µg/m <sup>3</sup> and PM 2.5 ranges from 20.9 to 50.6 µg/m <sup>3</sup> .<br>Please refer <b>Annexure -1</b> for monitoring data report for the above period. |
| 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.  | Fugitive emission monitoring is being carried out on regular basis on given below location.<br><ol style="list-style-type: none"> <li>1. Near Mill Stand</li> <li>2. Pickling Exist coil car towards BC Bay</li> <li>3. Wet area Rinse section, Near Pickling RC Tank No-5</li> </ol> As per the monitoring data during the period from April 2014 to Mar 2015 fugitive emissions at the above places ranges from 0.11 to 2.85 mg/m <sup>3</sup> .   |
| 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.  | We follow the latest guidelines/Code of Practice issued by the CPCB for Secondary fugitive emission monitoring.  |

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| vii.  | Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. The treated waste water shall be utilized for plantation purpose.   | Effluent treatment plants for the treatment of oily and acidic waste have been installed. The treated water is used for plantation/dust suppression and other low end uses.<br>As per the monitoring data during the period from April 2014 to Mar 2015, pH, TSS, Oil & Grease and Other parameters have been found within the prescribed limits.   |
| 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.   | Roof top rain water harvesting collection points of capacity of 13 KL and 9 KL have been set up within plant premises. It has been stated that this water is utilized for toilets as well as plantation. Water meter also has been installed for the monitoring. 231 KL rainwater utilized during this period.  |
| 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 have been provided with acoustic enclosures and silencer. Noise level is being monitored Near Pickling Line Exit, Near Mills Stand, Near Mills Stand Outside, Near Compressor Room, near Boiler House, near ARP Pump Room, Near Main office etc.  |
| x.    | Recommendations made in the Corporate Responsibility for Environment Conservation (CREP) issued for the steel plant shall be implemented.  | There are no specific recommendation has been made for Cold rolling mill under CREP. However solid wastes such as iron oxide and metallic scraps generated in the CRM have been sold to Tata Pigments and other outside authorized vendors. Besides generated oily scum is also being recycled by Bristol Pvt Ltd. (Authorized recyclers from West Bengal Pollution Control Board, Kolkata) |

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| xi.   | Occupational Health Surveillance of the workers shall be done on the regular basis and records maintained as per the Factories Act.  | It has been stated that during the period April 2014 to March 2015, occupational health surveillance has been conducted for 142 Workers of the plant and 430 contract workers as per factory act and records are maintained. Necessary counseling has been also given by the Doctors to the concerned patients.  |
| xii.  | The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report.   | It has been stated that Environment protection measures proposed in the EIA/EMP report are being implemented.  |
| 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. | <p>Community development programmes in surrounding areas are being implemented by TSRDS/ Social Services of Tata Steel. Major activities include education, health &amp; sanitation, drinking water supply, rain water harvesting &amp; support to SHGs etc. Health check-up camps are being organized at surrounding area.</p> <p>We have started an Adult Literacy Programme at Lal Bhatta. About 30 women from this bustee are enrolled and started attending classes). and recently organized a Football match at Bagunhatu (The tournament served as a platform for about 100 players amongst 8 teams of surrounding locality.</p> <p>Solar Street light has been installed at various places like Babudih, Birsanagar Zone -5, Bagunhathu etc. Midday meals are being served at schools of surrounding locality.</p> |

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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.   | Six monthly compliance reports with monitored data are being sent regularly to the Regional Office at Bhubaneswar / CPCB / JSPCB.  |
| 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 <a href="http://envfor.nic.in">http://envfor.nic.in</a> . 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. | The Notice has 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 the MoEF 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.   | It has been stated that plant construction activities started during April to Sept 2008 and the plant has been commissioned and commercial production started in May 2011.   |