

A	<b>SPECIFIC CONDITIONS for installation of Sinter Plant :</b>						
i.	Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks and sufficient air pollution control devices shall be provided to keep the emission levels below 100 mg/Nm <sup>3</sup> . 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. The monitoring reports shall be submitted to the Ministry's Regional Office at Bhubaneswar, CPCB and WBPCB.						
Com	ESP and bag filters have been provided in sinter plant for controlling the air pollution to keep the emission level below 100 mg/Nm <sup>3</sup> . Online SPM monitoring system in stack has also been provided. Monitoring reports shall be submitted after plant starts operation.						
ii.	Electrostatic precipitator (ESP) and bag filters shall be provided to Sinter plant to control the emissions within 100 mg/Nm <sup>3</sup> . Gases from the process shall be vented to atmosphere through chimney of adequate height as per the CPCB guidelines after passing through the ESP.						
Com	Complied.						
iii.	Gaseous emission levels including secondary fugitive emissions from blast furnace and sinter plant shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed. The emission standards issued by the Ministry in May, 2008 shall be followed. Data on fugitive emissions shall be submitted to Ministry's Regional Office at Bhubaneswar, CPCB and WBPCB.						
Com	Area	Month	SPM (mg/m <sup>3</sup> ) Limit- 10	RPM (mg/m <sup>3</sup> ) Limit- 5	SO <sub>2</sub> (mg/m <sup>3</sup> ) Limit- 5	NO <sub>2</sub> (mg/m <sup>3</sup> ) Limit- 6	
	Main Sinter Building	June 2014	1.70	0.78	0.019	0.034	
	Head ESP Area		0.185	0.088	0.025	0.042	
	Tail ESP Area		0.195	0.088	0.019	0.040	
iv.	Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.						
Com	Raw materials are mainly transported through railway wagon. Only vehicles having proper Vehicular Emission Certificate are allowed to enter the plant premises.						
v.	In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dust collection system shall be provided for arresting dust emissions. Dust suppression system like water spraying shall be provided at unloading and raw material handling areas, storage yards, conveyor belts and bucket elevators to control fugitive dust emissions to meet the WBPCB norms. Covered conveyer belts shall be provided. Water spraying shall also be done to prevent the dust emanation due to vehicular movement.						
Com	ESP and bag filters have been installed to arrest dust from various sources in sinter plant. Dust suppression system (water spraying) provided at ground hoppers of sinter plant.						
vi.	Total ground water requirement shall not exceed 700 m <sup>3</sup> /day. All the treated wastewater shall be recycled and reused in the process, dust suppression and green belt development. No wastewater shall be discharged outside the premises and 'Zero' effluent discharge shall be ensured. Domestic wastewater shall be treated in septic tank followed by soak pit system and used for plantation.						
Com	Complied						
vii.	Prior permission for the drawl of 700 m <sup>3</sup> /day water from bore wells from the Central Ground Water Authority / State Ground Water Board (CGWA / SGWB) shall be obtained.						

Com	Complied
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viii.	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report shall be submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB.
Com	Complied
ix	Dust collected from ESPs and bag filters shall be re-circulated into Sinter plant for making sinter. Solid waste from process containing oxides of Iron, Calcium and Silica and wastes from clarifier shall be recycled in Sintering process. Wastes from clarifier and bag filters shall be used in Sinter making. All the other solid wastes shall be properly disposed off in environment-friendly manner. Oily waste shall be provided to authorized recyclers / reprocessors as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments.
Com	Facility has been provided for recirculation of dust from ESPs and bag filters of sinter plant in sinter making. Used Oil used to dispose to authorized recyclers.
x	As proposed, green belt shall be developed in 33 % area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO.
Com	Sinter plant came within existing TML plant premises and Complied.
xi.	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the steel sector shall be strictly implemented.
Com	Tata Steel Group of Companies, as a whole is taking necessary initiatives to adhere to the CREP recommendations.
xii	The company shall provide housing for 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.
Com	Construction labours are from local villages. Toilets, drinking water, resting place for construction labours provided at site. Company medical unit takes care of health care of construction labours.

<b>B</b>	<b>GENERAL CONDITIONS for installation of Sinter Plant:</b>
i	The project authorities shall adhere to the stipulations made by West Bengal Pollution Control Board (WBPCB) and the State Government.
Com	Noted for compliance.
ii	No further expansion or modifications of the plant shall be carried out without prior approval of this Ministry.
Com	Noted for compliance.
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 WBPCB 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.
Com	Noted for compliance.

iv	Ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the WBPCB. Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and shall be carried out regularly in consultation with WBPCB and data submitted to the CPCB and WBPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time.
Com	Generally ambient air quality measured by WBPCB approved agency twice in a year.
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 shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
Com	Complied
vi	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
Com	Complied
vii	All the environment management measures given in the EINEMP shall be implemented and complied with.
Com	Noted for compliance.
viii	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
Com	Pond for accumulation of rain water is already in place.
ix	Proper house keeping and adequate occupational health programmes shall be taken up as per the Factory Act.
Com	Already in place.
x	The company shall undertake eco-development measures including community welfare measures in the project area.
Com	Sinter project came within the existing TML plant premises. Hence, already in place.
xi	A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.
Com	Noted for compliance.
xii	As proposed, Rs. 12.00 Crores and Rs. 20.00 Lakhs earmarked towards total capital cost and recurring cost/ annum for environmental pollution control measures shall be judiciously used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.
Com	Noted for compliance.
xiii	The Regional Office of this Ministry at Bhubaneswar/CPCB/WBPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data alongwith statistical interpretation shall be submitted to them regularly.
Com	Complied.

xiv	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.
Com	Project came within existing plant premises. Hence land development not required. Noted for compliance to inform the date of financial closure and final approval.
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 W. B. Pollution Control Board and may also be seen at the Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office at Bhubaneswar.
Com	Complied.

## **Annexure E**

**Date Of Sampling:- 18<sup>th</sup> June to 19<sup>th</sup> June 2014.**

### Ambient PM<sub>10</sub> Level

Sl	Area / Location	Limit ( $\mu\text{g}/\text{m}^3$ )	Result - ( $\mu\text{g}/\text{m}^3$ )
1	Near ADM Building	100	75.16 (Avg)
2	Near Guest House		81.14 (Avg)

### Ambient SO<sub>2</sub> Level

Sl	Area / Location	Limit ( $\mu\text{g}/\text{m}^3$ )	Result - ( $\mu\text{g}/\text{m}^3$ )
1	Near ADM Building	80	23.06 (Avg)
2	Near Guest House		24.46 (Avg)

### Ambient NO<sub>2</sub> Level

Sl	Area / Location	Limit ( $\mu\text{g}/\text{m}^3$ )	Result - ( $\mu\text{g}/\text{m}^3$ )
1	Near ADM Building	80	41.07 (Avg)
2	Near Guest House		42.80 (Avg)

Particulate Matter - **Date Of Sampling:- 18<sup>th</sup> June to 19<sup>th</sup> June 2014.**

Sl	Process attached to stack	Limit - mg/Nm <sup>3</sup>	Result
1	Head ESP	100	14
2	Tail ESP		18
3	Fuel Crusher		15
4	Raw Material Storage Bin		18
5	Flux Stack		22
6	Sinter Storage Bin		20