



## MAHARASHTRA POLLUTION CONTROL BOARD

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### RED/LSI

Consent No. BO/JD(APC)/EIC No.NG-9109-13/R/CC- 9097 Date: 29/10/2013  
Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorisation / Renewal of Authorisation under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundary) Rules, 2008. [To be referred as Water Act, Air Act and HW (M,H & TM) Rules respectively].  
CONSENT is hereby granted to,

**M/s Manganese Ore (India) Ltd.,  
(Dongri Buzurg Manganssee Mine)  
Po-Dongri Buzurg, Tal Tumsar,  
Dist -Bhandara.**

located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of HW(M&H) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to Operate is granted for a period up to 31.03.2014 or up to validity of mine lease period whichever is earlier.
2. The Consent is valid for the activity of Mining over a mining lease area of 174.86 ha

Sr.No.	Product	Maximum Quantity
i)	Manganese Ore Mine (Manganese Ore Mining & Ore Crushing)	35,000 Ton/ Month

### 3. CONDITIONS UNDER WATER ACT:

(i) The daily quantity of trade effluent from the factory shall not exceed 10.0 m<sup>3</sup>. (Including Mine Discharge).

(ii) The daily quantity of sewage effluent from the factory shall not exceed 30.0 m<sup>3</sup>.

(iii) **Trade Effluent Treatment:** The applicant shall provide comprehensive treatment system consisting of primary / secondary and/or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards:

1)	pH	Between	5.5 to 9.0
2)	Suspended Solids	Not to exceed	100 mg/l.
3)	BOD 3days 27 Deg. C.	Not to exceed	30 mg/l.
4)	Oil & Grease	Not to exceed	10 mg/l.
5)	Total Dissolved Solids	Not to exceed	2100 mg/l.
6)	Chlorides	Not to exceed	600 mg/l.
7)	Sulphate	Not to exceed	1000 mg/l.
8)	Nitrate Nitrogen	Not to exceed	10 mg/l.
9)	Phenol	Not to exceed	1 mg/l.
10)	COD	Not to exceed	250 mg/l.

(iv) **Trade Effluent Disposal:** The treated effluent shall be used for spraying mine pits to the maximum possible extent and excess shall be discharged into local nalla only after achieving above standards. The project authorities shall take proactive initiatives for use of this excess water for agricultural purposes in the vicinity of mine.

(v) **Sewage Effluent Treatment:** The applicant shall provide comprehensive treatment system as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards.

- |     |                   |               |           |
|-----|-------------------|---------------|-----------|
| (1) | Suspended Solids  | Not to exceed | 100 mg/l. |
| (2) | BOD 3 days 27° C. | Not to exceed | 100 mg/l. |

(vi) **Sewage Effluent Disposal:** The treated domestic effluent shall be used on land for gardening / irrigation purpose only.

(vii) **Non-Hazardous Solid Wastes:**

<u>Type of waste</u>	<u>Quantity</u>	<u>Treatment</u>	<u>Disposal</u>
1) The waste i.e. Over burden shall be disposed for by means of backfilling or Reclamation of the land.			
2) Mud Sludge	5.0 Ton/Month		Landfill

(viii) **Other conditions:** The industry shall monitor effluent quality regularly.

4. The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 ( to be referred as Cess Act ) and Amended Rules, 2003 there under:

water consumption for the following categories is as under:

Sr No	Consumption	Quantity
1	Domestic	93 CMD
2	Mine Discharge	
3	Spraying, Workshop, dust Suppression	42.0 CMD
4	Sand stowing	100.0 CMD
5	Other uses like gardening Etc	6.0 CMD

5. **CONDITIONS UNDER AIR ACT:**

(i) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with reference to generation of emission and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards:

**(A) Standards for Ambient Air Pollutants:**

- |       |                                      |               |                         |
|-------|--------------------------------------|---------------|-------------------------|
| (i)   | Suspended Particulate Matter [SPM]   | Not to exceed | 500 ug/m <sup>3</sup>   |
| (ii)  | Respirable Particulate Matter [RSPM] | Not to exceed | 250 ug/m <sup>3</sup>   |
|       | [Size less than 10 micrometer]       |               |                         |
| (iii) | Sulphur Dioxide (SO <sub>2</sub> )   | Not to exceed | 120 ug/m <sup>3</sup>   |
| (iv)  | Oxides of Nitrogen (NOx)             | Not to exceed | 120 ug/m <sup>3</sup> . |

**(B) Standards for Emissions of Air Pollutants:**

- |      |                 |               |                        |
|------|-----------------|---------------|------------------------|
| (i)  | TPM             | Not to exceed | 150 mg/Nm <sup>3</sup> |
| (ii) | SO <sub>2</sub> | Not to exceed | -- Kg/Day              |

**(C) Control Equipment:**

- (i) Mineral handling plant will be provided with Dust Collector and Automatic Water Sprinkler.
- (ii) Scientific spraying of water on all working area, dump area, stock piles with the help of appropriate dust suppression system.
- (iii) Mineral metal shall be properly covered during transportation.
- (iv) The applicant shall carry out tree plantation along road side, around dumps or Compulsory a forestation as per proposal approved by Forest Department. The tree plantation programme shall be taken up well in advance of the actual mining activity, so that green belt of sufficient width and height is developed between mining area/road and surrounding environment.
- (v) Black topped metal led roads shall be provided and well maintained to prevent dust formation.

- (vi) Overloading of dumpers shall be avoided to prevent spillages.
- (vii) Correct type and quantity of explosive shall be used to avoid excess dust formation and vibration in the surrounding area.
- (viii) The slope of the over burden shall have slope but not more than 28 degree to the horizontal. The overburden shall be properly covered by vegetation for Stabilization.
- (ix) Coal/Mineral transportation shall be done by installing conveyors wherever possible & mechanically covered closed trucks shall be used for transportation.

(II) The applicant shall observe the following fuel pattern:-

<u>Sr.No.</u>	<u>Type of Fuel</u>	<u>Quantity</u>
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(III) The applicant shall erect the chimney(s) of the following specifications:-

<u>Sr.No.</u>	<u>Chimney attached to</u>	<u>Height in Mtrs.</u>
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(IV) The applicant shall provide minimum three ambient air quality monitoring stations within mining area which should be monitored for SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub>, HC, CO etc. The Annual Arithmetic Mean of minimum 104 measurements in a year taken twice a week 24-hourly at uniform interval shall conform to the National Ambient Air Quality Standards prescribed under Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986. The records of results of continuous monitoring done shall be made available for inspection to the officers of the Board.

(V) The applicant shall take adequate measures for control of noise levels from its own Sources as follows.

Sr.No.	Location	Permissible Norms [in dB(a)]	Desired minimum thickness of Green Belt
1	Along road	65 (Commercial Area)	20
2	In Colonies	55 (Residential Area)	20
3	Near Opencast Mines	75 (Industrial Area)	10 (*40)
4	Near CHPs	75	30
5	Near Shaft	75	20
6	Near Mine exhaust fan	75	>50

(\*The Open Cast Mine needs to be surrounded by a green belt of sufficient width as per the guidelines of Design Institute Ltd. (A Subsidiary of Coal India Ltd.) if the residential complexes are very close).

(VI) **Other Conditions:**

Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.

#### 6. CONDITIONS UNDER HW (M,H &TM) RULES, 2008:

(i) The applicant shall handle hazardous wastes as specified below:

Sr. No.	Item No. as per Sch-I	Type of Waste	Quantity	Disposal
1	5.1	Used/Spent oil	1000 lit/Month	By sale to authorized

				reprocessor
2	34.3	Chemical Sludge from waste water treatment	50 kg/day	CHWTSDF, Butibori

#### 7. General conditions:

- (i) The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30<sup>th</sup> September every year on available open plot area, no. of trees surviving as on 31<sup>st</sup> March of the year and no. of trees planted by September end.
  - (ii) The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by he applicant and operate the same in case of power failure to maintain compliance with the terms and conditions of the consent. In the absence of same, the applicant shall stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.
  - (iii) **The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.** The applicant shall not change or alter quantity, quality, the rate of discharge, emperature or the mode of the effluent/ emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
  - (iv) The firm shall submit MPCB, the Environmental Statement Report for the financial year ending 31<sup>st</sup> March in the prescribed Form-V as pre the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992 before 30<sup>th</sup> September every year.
  - (v) The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained. The applicant shall also submit a comparative statement of designed power and chemical consumptions vis-a-vis actual power and chemical consumption alongwith Environmental statement.
  - (vi) Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers down- stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
  - (vii) The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
  - (viii) The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
  - (ix) The applicant shall maintain good house keeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants. The project authorities shall work out the feasibility of deploying mechanically closed trucks for transportation and submit action plan within 3 months.
8. The project authorities shall identify critical road sections where the dust generated from coal/mineral transportation is likely to affect human population and/or agriculture and take up works of making those roads pucca and clean, so as to reduce dust emissions in 3 months.

9. The project authorities shall install well designed water sprinkling arrangements including fixed and mobile sprayers for dust suppression. The augmentation/ up gradation proposal for dust suppression system shall be submitted in 3 months.
10. The project authorities shall give suitable training to field level mine personnel and truck drivers on environmental protection and pollution control.
11. The applicant shall comply with the conditions stipulated in the Environment Clearance granted by MoEF,GoI vide no J-11015/232/2007-IA.II(M) dated 20.7.2007.
12. This Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the Applicant.
13. Industry shall implement mechanical close type transportation system for coal/metal minerals handling trucks and also introduce closed type conveyer belt transportation of coal/minerals from mines.
14. This is issued pursuant to the decision of Consent Committee Meeting of the Board held on 15.10.2013.
15. The applicant shall submit the irrevocable bank guarantee of Rs. 10 Lakhs to upgrade the Effluent Treatment Plant on or before 31.12.2013, within 15 days drawn in favour of RO, MPCB ,Nagpur, valid for one year period .
16. The applicant shall submit the irrevocable BG of Rs. 5.0 Lacs within 15 days drawn in favour of RO,MPCB ,Nagpur, valid for one year period, towards O & M of pollution control system.
17. Total Capital investment of the industry is Rs. 62.7 crore.

For and On Behalf of the  
Maharashtra Pollution Control Board,

(Rajeev Kumar Mishra, IAS)  
Member Secretary

To,  
M/s Manganese Ore (India) Ltd.,  
(Dongri Buzurg Manganese Mine)  
Po-Dongri Buzurg, Tal Tumsar,  
Dist. Bhandara  
Copy to:

- 1) Regional Officer, MPCB, Nagpur. 2) Sub-Regional Officer, MPCB, Bhandara.

They are directed to forfeit the BG of Rs.5.0 Lacs for non compliance of consent conditions ((i.e for not upgrading ETP) and obtain bank guarantee from the industry as per consent condition No.15 & 16 and submit the performance report along with the monitoring results.

- 3) Chief Accounts Officer, MPCB, Mumbai.

Received Consent fee of -

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	561100	005321	22 Mar 2013	IDBI

- 4) Cess Branch, MPCB.

- 5) Master file.