Annexure-1

EXECUTIVE SUMMARY

For

Installation of new unit for production of 6000 MTPA Manganese Oxide

At

.Plot no.- A-11/6, MIDC Butibori, Distt-Nagpur (Maharashtra)

Study Period: Post Monsoon
(1st October to 31st December 2018)

Applicant

M/s Veracity Natural Resources Pvt. Ltd.
Mr. Anup A. Sawankar (Director)
Plot No-403, Kasturi Sakshi
Appartment, Umred Road, Nagpur
Email id: veracitynatural123@gmail.com

Environment Consultant
Vardan EnviroNet
(NABET/EIA/1619/RA0037)
D-142, Sushant Lok-III, Sector-57
Gurgaon (Haryana)
Mail ID: vardanenviro165@gmail.com
Contact No. 0124-4291036. 09899651342

Annexure-1

EXECUTIVE SUMMARY

Project name and location

Project Name:

Installation of new unit for production of 6000 MTPA Manganese Oxide located at Plot no-A-1116, MIDC Butibori, Distt-Nagpur (Maharashtra) By M/s.Veracity Natural Resources Pvt. Ltd.

Person to be employed:

Direct employment due to the proposed expansion will be 28.

The region shall also be benefited from the project as there will be direct employment of people in the Manganese Oxide plant. Preference will be given to the people of the state possessing requisite skill and qualification criteria. Also there will be lot of scope for indirect employment of the people of the state in and around the project site like in transportation sector.

The estimated direct manpower required after the proposed project shall be 28 (25 skilled & 3 supervisory staff), comprising administrative, technical, non-technical, skilled and unskilled workforce.

Address for Correspondence (Name, Designation and complete address)

M/s Veracity Natural Resources Pvt. Ltd
Name: Mr. Anup A. Sawankar
Address: R/o - Plot No 403, Kasturi Sakshi Appartment, Umred Road, Nagpur
Email id: anupvaracity@gmail.com

Phone no: +91 7304412777

Products and capacities.

Project is for regularization of installed facilities for production of manganese oxide 6000 TPA over area measuring 1500 m^2.

Production Capacity

Plant	Unit	Production Capacity (MnO)
Furnaces	**2x12 T**	**6000 MTPA**

Requirement of land, raw material, water, power, fuel with source of supply (Quantitative)

Annexure-1

Requirement of Land

The total land available for the project is 1500 m^2 out of this 529.06 m^2 area is built-up area.

Raw Material Requirement

S. No.	Raw material	Quantity
1	Manganese Ore	7500 MTPA
2	Coal	4200 MTPA

Water requirement

Water is most important raw material required for any Manganese oxide industry. In order to conserve fresh water, water economy has been an underlying criterion for selection of plant and equipment.

Total water requirement for the complete unit after regularization shall be 3 KLD, out of which 2 KLD will be used in manufacturing process and 1 KLD will be used for domestic purpose.

Table: Total Water Requirement for the Existing and Proposed Plant

Purpose	Water Requirement (KLD)
For Processing	**2**
Domestic	**1**
Total	**3**

Power Requirement

Power requirement for operation of the plant is 19 KW. Power requirement shall be met from Maharashtra State Electricity Board. Permission shall be obtained.

Emergency Back-up Power:

The company will have gensets of required capacity to meet its regular and un-interrupted power supply.

Manufacturing Process

Screening of Manganese Ore :

For obtaining uniform size the material is screened so that it can directly be feeded in to further process.

Jigging:

Annexure-1

After screening process there is still some impurities like silica attached with manganese ore. To separate out these impurities water jigging is done by jigging machine to wash impurities of screened Manganese ore.

Reduction Process:

Reduction process of Manganese tri oxide (MnO_3) and Manganese di oxide (MnO_2) into manganese oxide (MnO) is conducted in to furnace with charcoal. The temperature of furnace is kept 1000 ^{0}C and the process time is around six hours.

$$MnO_3 + C \longrightarrow MnO + CO_2$$

$$2MnO_2 + C \longrightarrow 2MnO + CO_2$$

Cooling Process:

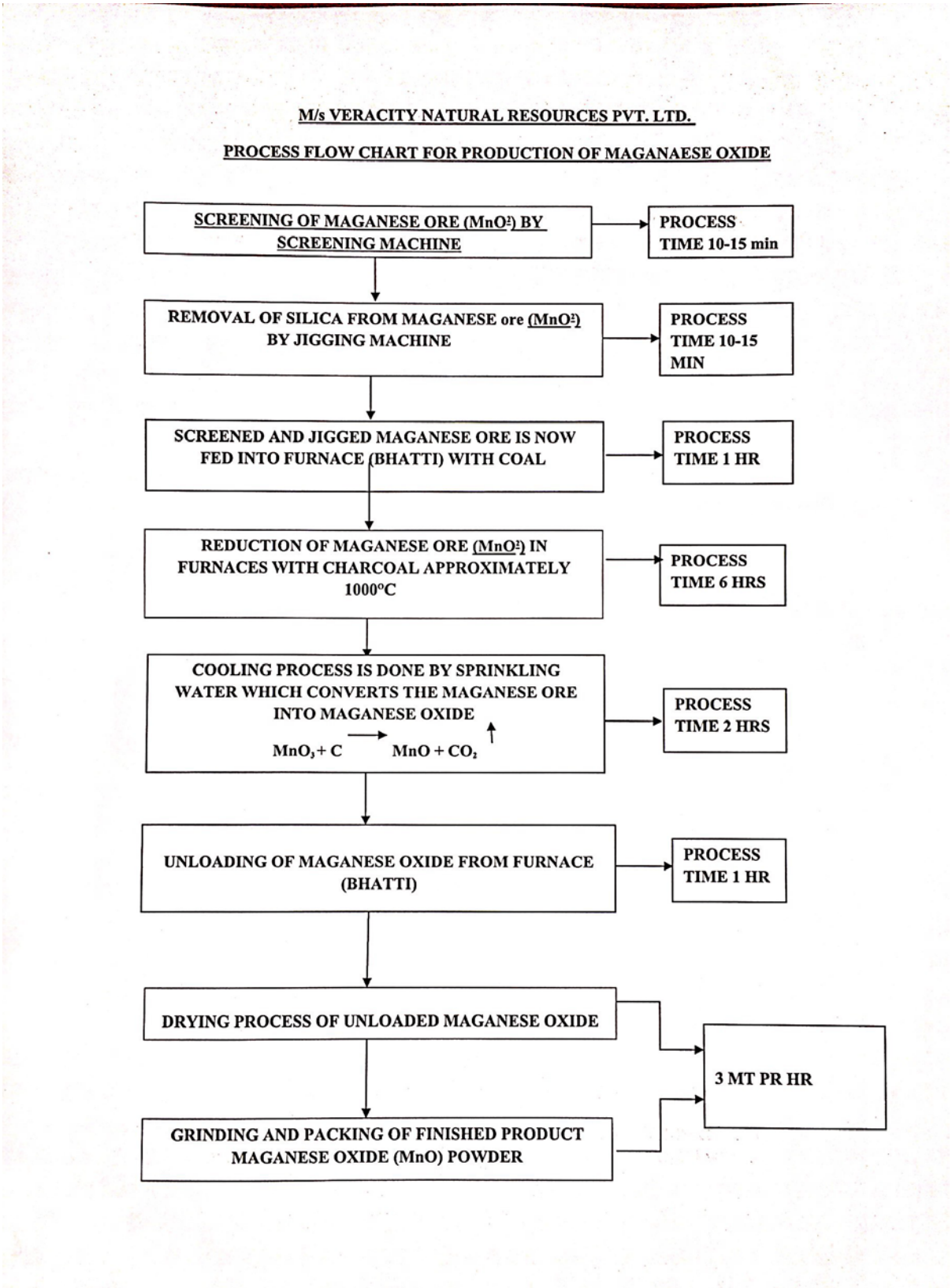
Water sprinkling is done for cooling process.

Unloading and Drying:
During cooling process moisture content of MnO is increased. So after unloading, material is sent to the dryer.

Magnetic Separation: There is sufficient amount of iron impurities present with MnO. To remove these impurities magnetic separation process is done.

Grinding and Packing: MnO is used as powder form, so grinding process is done to convert it in to powder then packed it for supply.

Annexure-1



Solid waste generation and management

15 TPA ash will be generated, which will be sold to the brick manufacturer and very less amount

Annexure-1

of solid waste shall be generated which shall be recycle or reuse.

LIQUID EFFLUENT GENERATION AND MANAGEMENT

Only domestic waste water will be generated which will be disposed off in septic tank follwed by soak pit and other will be used for flore washing purpose.

Management of Hazardous Waste

No Hazardous waste shall be generated from the project, except Used Oil, approx. 35 KLD, shall be sold to the registered recycler.

Baseline environmental data– air quality, surface and ground water quality, soil Characteristic, flora and fauna, socio-economic condition of the nearby population

Baseline Environmental Study

To predict the impact of the proposed activities on the surrounding environment, the current baseline environmental status was studied by collecting the data and carrying out monitoring for the period of 1st October to 31st December 2018**.** The baseline data for ambient air quality, surface and ground water quality, noise and soil quality was collected and analyzed for various parameters are as per norms.

Parameters	No. of Sites	Description	Permissible Level
Air Quality	8	• PM2.5 19.6 to 42.6 µg/m^3 • PM10 50.6 to 80.5 µg/m^3 • SO2 7.1 to 16.5 µg/m^3 • NO2 15.3 to 26.4 µg/m^3 • CO 0.62 to 1.05 mg/m^3	100 µg/ m^3 60 µg/ m^3 80 µg/ m^3 80 µg/ m^3 2 mg/m^3
Ground Water Quality	8	• pH varies from to 7.20 to 8.00 • Total Hardness varies from 160.25 to 260.50 mg/L. • Total Dissolved Solids varies from 325 to 510 mg/L. • Chlorides varies from 48 to 85 mg/L • Flouride varies from 0.56 to 0.90 mg/L	6.5-8.5 200-600 mg/L 500-2000 mg/L 250-1000 mg/L 1.0-1.5 mg/L
Surface Water Quality	8	• pH varies from to 7.21 to 8.10 • Dissolved Oxygen varies from 4.0 to 6.4 mg/L • BOD varies from 2.5 to 16.20 mg/L • COD varies from 8. 5 to 52.5 mg/L	IS:2296 Class C Norms
Soil Quality	8	• pH 7.01 to 7.82 • Potassium K 250 to 342 (Kg/hec) • Available nitrogen N 178 to 285 (Kg/hec) • Phosphorus 10.3 to 14 (Kg/hec)	----
Noise Level	8	• Day Time (6:00 a.m. to 10:00 p.m.)	75 Leq dB (A)

Annexure-1

Parameters	No. of Sites	Description	Permissible Level
		51.60 Leq dB(A) to 70.40 Leq dB(A) • Night Time (10:00 p.m. to 6:00 a.m.) 40.20 Leq dB(A) and 61.10Leq dB(A)	70 Leq dB (A)

Likely impact of the project on air, water, land, flora-fauna and nearby population:

Impact on Air environment

During operational phase air pollution shall be from Induction Furnaces, CCM, Rolling Mill, Cold drawing machines and Material Handling areas.

During operational phase air pollution shall be from Induction Furnaces and Material Handling areas.

Emission from Point Source (Stack)

Dust and gaseous emission shall be from the flue gases generated at Induction Furnaces.

Emission from Area Source (Fugitive Emission)

Fugitive emissions are expected during melting operation in Induction Furnace, charging of raw materials and transportation of raw materials. Dust is also generated during loading and unloading and transportation of material. Fugitive emission is also generated due to vehicular movement in the premises.

Impact on Water due to Water usage and Water discharge

Only domestic waste water will be generated which will be disposed off in septic tank follwed by soak pit and other will be used for flore washing purpose.

Air Pollution Mitigation Measures:

- All pollution control equipment shall be checked on half yearly basis for any wear and tear and suitable repair/maintenance shall be carried out.
- System shall be put in place to report equipment failure immediately. Emergency plan shall be laid out tackle pollution control equipment failures. All equipment failures shall be reported to CPCB/SPCB/Regional Office of MoEF&CC on 6 monthly basis with investigation report and corrective actions. Guidelines / Code of Practice for pollution prevention for Sponge Iron Plants (GSR 414 dated 30th May 2008) shall be implemented.
- The site environmental/designated officer shall certify the emission data on daily basis. The records shall be maintained and submitted as part of half yearly compliance report.
- Asphalting of all roads/surfaces within the plant premises.
- Covered conveyor belts gallery to prevent fugitive emissions
- BS-III or higher quality diesel shall be used for operating DG Sets

Annexure-1

- Greenbelt development shall be done within the project area along the boundary walls and any other suitable areas.
- Regular ambient air quality monitoring shall be performed at all baseline stations for checking compliance with NAAQ standards. Online monitoring system shall be established as per Govt. guidelines.
- For vehicle movement - due to the expansion of proposed project the traffic density will increase as all the raw material and finished product will be transported through the road under study.
- Suitable traffic management plan will be adopted to minimize the impacts on the traffic scenario of the area.

Water Pollution mitigation measures

Total fresh water requirement of the proposed project is estimated to be **3 KLD**.

Water will be sourced from MIDC Butibori. Permission exists for present ground water usage and applied for the proposed expansion.

Only domestic waste water will be generated which will be disposed off in septic tank follwed by soak pit and other will be used for flore washing purpose.

Rain water harvesting will be taken up as a measure to conserve water.

-In case of hazardous operation, safety systems incorporate:

Workers will be informed, kept aware and trained about occupational health hazards, due to such activities. Workers health related problem if any, will be properly addressed.

Capital cost of the project, estimated time of completion:

Estimated project Cost is Rs. 2.72 Crores.

Descriptions of Environmental sensitivity in 10 km radius form the site. Selection of the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest, eco-sensitive zones, accessibility.

S.No.	Features	Details
1.	Village, District and State	Village: Butibori, District: Nagpur, Maharashtra.
2.	Topo sheet	Toposheet No.- F44M16, F44N4, F44S13 & F44T1
3.	Latitude	20^0 55’ 50.70”N
4.	Longitude	78^0 57’ 26.63”E
5.	Total Area	1500 m^2

Annexure-1

S.No.	Features	Details
6.	Nearest Highway/State High Way	NH- 204, 4.0 km in East SH- 262, 7.0 km in SE
7.	Nearest Railway Station	Nagpur – 25.5 km in NE
8.	Nearest Airport	Nagpur International Airport - 21 km. in SE
9.	Nearest River	Vena River at 1.75 km in East
10.	Forest	Dongargaon reserve forest at 2.5 km in SE
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Nearest Hospital Butibori Within 5.0 kms radius Nearest school Butibori Within 2.0 kms radius Community facilities Butibori Within 2.0 kms radius Place for worship Butibori Within 2.0 kms radius
12.	State, National boundaries	Nil within 10 Km radius
13.	Densely populated or built-up area	Butibori Village at 3.7 km in NE direction from plant site.
14.	Defense Installation	Nil within 10 Km radius
15.	National Park/Wild life Sanctuary	Nil within 10 Km radius
16.	Nearest dam	Wadgaon reservoir 9 km in SE
17.	Nearest Power Station	Nil within 10 Km radius

Emergency preparedness plan in case of natural or in plant emergencies:

On-site and Off-site Emergency Preparedness Plan has been developed to control emergency situations. The emergency control room and Assembly area shall be set up at a safe location and marked on the site plan and will be manned round the clock. The control room will be activated in case of an emergency to direct and co-ordinate the operations to handle the emergency. It will be furnished with external and internal telephone connections etc; list of essential telephone numbers; list of key personnel and their address; fire fighting system and site plan. Depending upon site requirements, additional control room will be considered.

Issues raised during public hearing (if applicable) and response given:

Public hearing issues will be incorporated after the public hearing conducted by SPCB.

CER Budget:

Rs. 5.5 Lakhs has been earmarked for the Corporate Environment Responsibility (CER) to meet expenditures for the commitments made to the stakeholders during the Public Hearing. As per the social environment and the related aspects the CER will be aimed at infrastructure building

Annexure-1

for Education, Communication, Medical (health & family welfare), Drinking water and Training for self employment.

Occupational Health Measures:

Occupational diseases and health impairments occur every day throughout the world, due to lack or inadequacy of prevention and control measures at the workplace.

The project proponent strongly believes in the safety and health of the workers. The company will conduct regular medical checkup of the worker and on the safer side there will always be a rotation of the job for the worker who are exposed to dust and high noise. Safety being the first policy of the company.

M/s Veracity Natural Resources Pvt. Ltd. shall establish procedures and systems for reporting and recording of Occupational accidents and diseases and dangerous occurrences and incidents. All reported occupational accidents, occupational diseases, dangerous occurrences, and incidents together with near misses shall be investigated with the assistance of a person knowledgeable/competent in occupational safety.

A budget of Rs. 50,000/- per year has been earmarked for OH & S.
