

EXECUTIVE SUMMARY

FOR

PROPOSED STEEL MANUFACTURING PLANT WILL HAVE
INDUCTION FURNACES OF CAPACITY 1X15TPH & 2X12 TPH, A
CONCAST MACHINE, VD & LRF AND ROLLING MILL

IN THE PROPOSED STEEL MANUFACTURING UNIT OF

M/s VANEERA INDUSTRIES LIMITED
VILLAGE- KADDON, TEHSIL- DORAHA, DISTRICT- LUDHIANA, PUNJAB

Prepared by

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1.0 Project Name and location

The Proposed Project i.e. M/s Vaneera Industries Ltd. is a Non- Toxic Secondary Metallurgical Process based industry. The plant is located at Village- Kaddon, Tehsil- Doraha, District- Ludhiana, Punjab.

2.0 Products and capacities

M/s Vaneera Industries Ltd. proposes to install steel manufacturing unit at Village- Kaddon, Tehsil- Doraha, District- Ludhiana, Punjab. It is proposed to install three numbers of Induction Furnaces having capacity 1X15 TPH & 2X12 TPH, Concast Machine, LRF, VD and also a Rolling Mill having capacity 25 Tons per hours. The production details will be as under:

Product Name	Proposed (TPA)
Steel Billets	1,91,100
Wire rod, Rounds, RCS, Hexa & TMT Bars	1,75,000

3.1 Land Area

The industry will have 3.25 acres of land.

3.2 Raw Material Requirement

Raw Material	Proposed (TPA)
M.S Scrap	2,07,550
Ferro Alloys	4,200
Source & Mode of transport	From Domestic & as well as International Markets through covered trucks

3.3 Water Requirement

Water consumption for the unit will be making up water for cooling and for domestic purpose. Water requirement will be met through existing tube well. The detail of water requirement is given below:-

DESCRIPTION	PROPOSED
Domestic	15.0 KLD
Cooling (makeup water)	55.0 KLD
Total	70.0 KLD

3.4 Power Requirement

The Power Requirement will be met by sourcing the power from Punjab State Power Corporation limited from nearby Sub-station. The detail of power requirement is given below:-

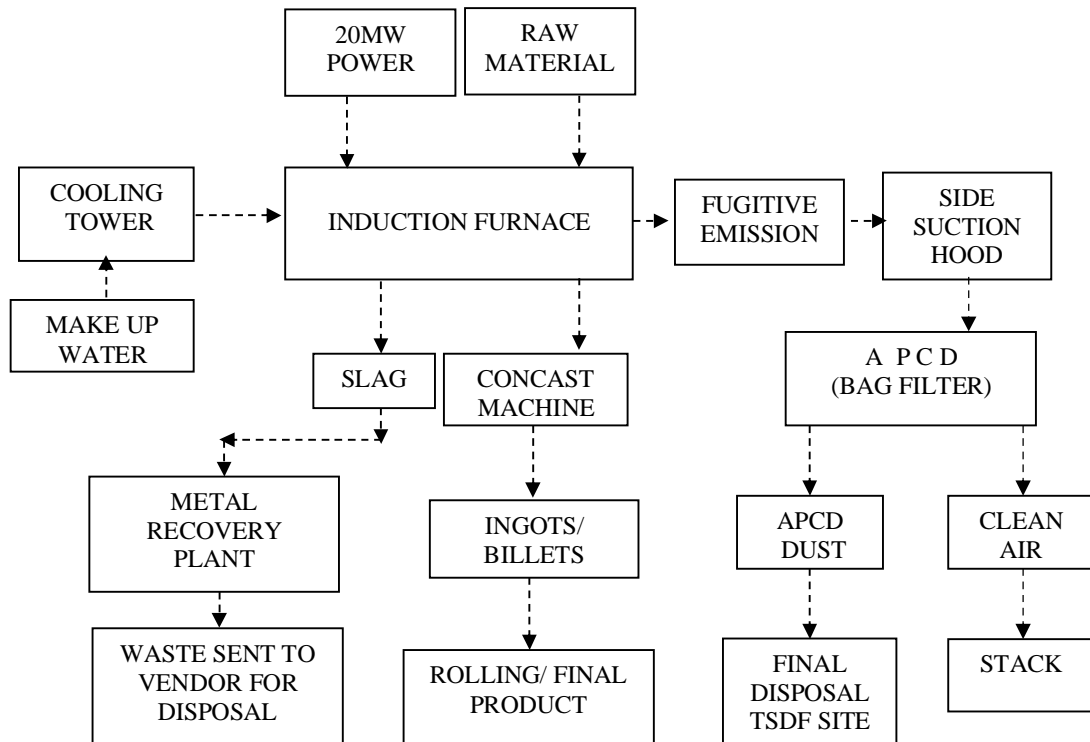
DESCRIPTION	PROPOSED
Power Requirement	20 MW
Source	Punjab State Power Corporation Limited, Punjab

3.5 Manpower Requirement

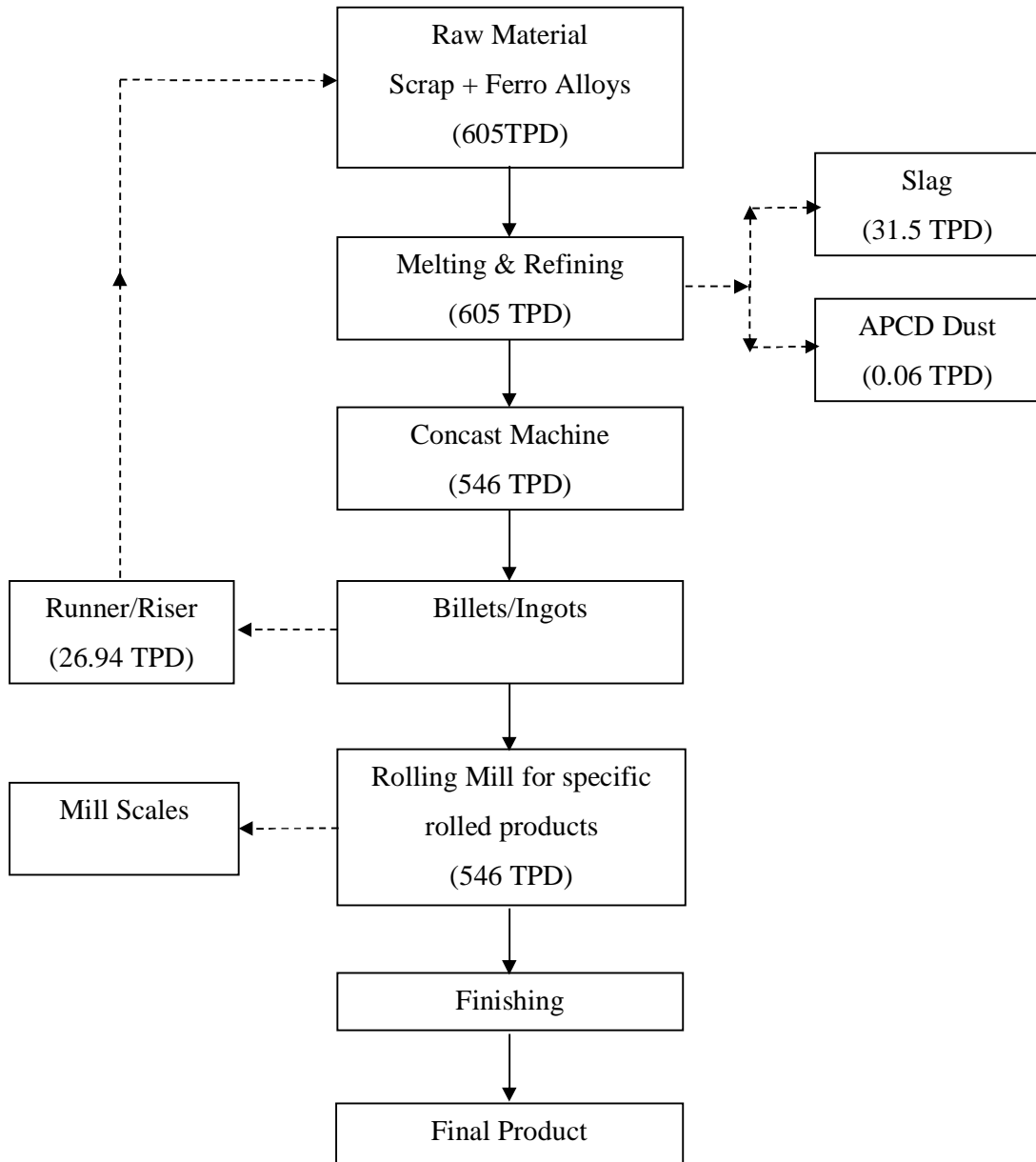
Total number of manpower in the manufacturing unit will be 300 persons.

4.0 Process Description/Material Balance

Flow Chart of Manufacturing Process



Material Balance



5.0 Description of Mitigation Measures

The purpose of mitigation measures is to avoid, reduce or minimize unwanted impacts on the environment. To minimize & control the emission from I.F, the exhaust is passed through spark arrestor, multi cyclone and finally bags filters before its discharge to atmosphere. About 31.5 TPD of slag which is not a H.W will be generated and the same after recovering of iron will be supplied to manufacturers of cement concrete blocks, pavers & tiles under proper agreement. STP is provided for treatment of domestic effluent. Treated effluent is used for plantation in the premises. The industry is regularly operating and maintaining its APCD and ensuring that the emissions are adequately collected and concentration of air pollutants in its emissions conforms to the emission standards laid down by the board

6.0 Cost Details

The total project cost of the unit will be Rs 25.0 Crores. The proposed project will be done within one year after granting of Environment Clearance.

7.0 Site Details

M/s Vaneera Industries Ltd. located at Village- Kaddon, Tehsil- Doraha, District- Ludhiana, Punjab having its global coordinates as Latitude 30°45'55.81"N, 30°45'51.58"N, 30°45'50.00"N, 30°45'53.94"N & Longitude 76°02'59.88"E, 76°03'04.29"E, 76°03'01.66"E, 76°02'57.54"E. Khanna is the nearest city which is at distance of 10km and the nearest railway station is Doraha which is at distance of 4.0km from the project site. Nearest airport is Ludhiana which is at 12 km from site. No National Parks/ Wildlife Sanctuaries/ Biosphere Reserves/ Reserved Forests exist within 5 km radius of project site. The nearest water bodies are Sirhind Canal which is about 3.0 km.

8.0 Baseline Environmental Data and their impacts

Various Environmental factors as existing in the study area which are liable to be affected by the activities have been assessed both quantitatively and qualitatively. Baseline environmental data generation of study area was carried out during the period Feb. to April, 2019.

8.1 Ambient Air Quality

The PM_{2.5}, PM₁₀, SO₂, NO₂, CO levels were monitored at eight locations in the study area for four months (Feb to April, 2019). The P98 levels of criteria pollutants are as follows: PM_{2.5} is 44.9µg/m³, PM₁₀ is 92.7µg/m³, SO₂ is 11.9/m³, NO₂ is 30.2µg/m³ and CO is 0.58mg/ m³. The baseline air quality level is within the National Ambient Air Quality Standards prescribed for

industrial, residential, rural & other area and also satisfies the air quality index (AQI) w.r.t. health bracket for all the monitoring. **(Standards are 60, 100, 80, 80 $\mu\text{g}/\text{m}^3$ and 4.0 mg/m^3 for $\text{PM}_{2.5}$, PM_{10} , SO_2 , NO_x and CO respectively).** Due to better pollution abatement facilities, proposed project will have insignificant impact on existing air quality.

8.2 Water Quality

Eight groundwater samples and one surface water sample were collected from the study area for physical, chemical and bacteriological analysis. The groundwater quality of the study is satisfactory. No chemical or bacterial contamination was found in the water quality. But bacterial contamination is found in surface water.

8.3 Noise Environment

Ambient noise levels were monitored at 8 locations in the study area. Noise levels in the study vary from 40.9 dB (A) to 58.5 dB (A) in day time and 35.0 dB (A) to 50.1 dB (A) at night. The highest levels were observed at Project Site. The baseline noise levels are well within the National Standards. Proposed project will have less impact than existing one due to better pollution control facility.

8.4 Soil Quality

Eight soil samples were collected from the study area and analyzed. The texture of soil is sandy loam. The organic matter, nitrogen, potassium and phosphorus content of the soil are moderate. The pH of all the soil samples is within the acceptable range. No impact on soil will be there for proposed plant.

8.5 Ecological environment

Ecological data has been collected through secondary sources and by site visits. The tree species kikar, Jamun, Peepal and Mango etc are the dominant plant species of the study area. Mongoose, porcupine, jungle cat, cobra, krait, snakes, hare, pigeon and variety of birds are the common animals of the study area. No endangered species of plants and animals are found in the study area, so no impact on ecological environment.

8.6 Sensitive Ecosystem:

Within the study area, no plant or animal species were found to be on the endangered list. No ecologically sensitive area like biosphere reserve, tiger reserve, and migratory corridors of wild elephant, wetland, national park and wildlife sanctuary are present in the study area. Agriculture and industrial workers dominate the occupational structure of the study area.

Several induction furnaces, rolling mills, ferroalloy plants, brick kilns, and other small units are present in the study area.

8.7 Socioeconomic Condition:

Socioeconomic status has been studied through secondary sources and by site visits. The social requirements identified such as Drinking water requirement, Promotion of Educational institutions and Medical facilities to the villagers (especially Senior Citizens and infants or pregnant ladies). Community centers, recreation facilities etc will also be developed as part of social responsibility.

9.0 Possible Hazards & Risks from Secondary Metallurgical Industries

The various process operations, which are having potentially high risk to human exposure and which have high levels of attention area identified in **Table 11.1**.

Table 11.1: Possible Risk

S.No.	Plant Area	Possible Deviation from normal operation	Likely Causes	Consequences
1	Furnace	Re-circulating and cooling water coming in contact with the molten iron or slag.	Leakage of water from the walls Spurting of metal/slag.	Explosion under extreme cases.
		Presence of Oil & Grease and other Impurities in raw materials.	Fire	Sudden catches fire & flames
2	High Power Transformer	Oil temperature being very high.	Varying room Temperatures	Sudden flashing of fire or bursting.
3	High Tension Electrical Installation	Heavy sparking at the pot heads and the joints.	Loose joints, cable cut, burning of fuses, short circuits etc.	Sparks in the beginning, devastating fire if neglected.

10.0 Emergency Plan

Emergency planning is primary for the protection of plant personnel and people in nearby

areas and the environment that could be affected by unplanned hazardous events. Furnaces are associated with fire and electrical hazard due to sudden generation of pressure or temperature that leads to damage, injury and death. Temperature and pressure are closely related, and when flammable or combustible mixture is present in process equipment that leads to worst consequences. Thus, an engineering evaluation will be done for worst-case scenario.

11.0 CER Activities (Corporate Environmental Responsibility)

The company has earmarked Rs. 10.0 lakhs towards the Corporate Environmental Responsibility for undertaking the environmental activities as defined in CER circular issued by MoEF & CC and the public hearing issues which will be detailed in final EIA report.

12.0 Environment Monitoring Plan

Regular monitoring of all significant environmental parameters is essential to check the compliance status vis-à-vis the environmental laws and regulation. The frequency of the monitoring will be as follows:

- The ambient Air quality shall be monitored at project site and two upward and downstream locations once every quarter for PM_{2.5}, PM₁₀, NO_x & SO₂, and CO levels during the Construction Phase and Operational Phase.
- The Ambient Noise Levels, Water Quality, Effluent etc. shall also be monitored once every six months or as per EC conditions.

13.0 Environment Management Cell (EMC)

A duly constituted EMC comprises the following:

1. Project Promoter
2. Process Incharge
3. Environment Consultant