EXECUTIVE SUMMARY

FOR

PROPOSED EXPASNION OF STEEL MANUFACTURING PLANT

M/S NEELKANTH MULTIMETALS

VILLAGE-MAJRI MISHRI, BACKSIDE FOCAL POINT, MANDI GOBINDGARH, TEHSIL- AMLOH, DISTRICT-FATEHGARH SAHIB, PUNJAB.

Prepared by

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1.0 Project Name and location

The proposed expansion project namely **M/s Neelkanth Multimetals** is located at Village-Majri Mishri, backside Focal point, Mandi Gobindgarh, Tehsil- Amloh, District-Fatehgarh Sahib, Punjab.

It is a **Category 'B'** project under schedule 3(a) in EIA Notification, 2006.

2.0 Products and capacities

The industry has already granted Consent to Operate for manufacturing of Steel Billets, Angles, Channels, Flats @82TPD/28,700TPA with 01 no. of Induction Furnace, 01 no. of rolling mill and 01 no. of concast. Now, the unit proposes the expansion of existing steel manufacturing unit by replacing existing Induction Furnaces of capacity 7 TPH with Induction furnace having capacity 30 TPH and addition of 01 no. of rolling Mill and 01 no. of concast. Total capacity of the project after expansion will be 480 TPD/1,68,000 TPA of Steel Billets, Angles, Channels, Flats, TMT Bars, Rounds, Patra/H.R. Coil.

After expansion the production details will be as under:

Product Name	Existing (TPA)	Proposed (TPA)	Total (TPA)
Steel Ingots/Billets, Angles, Channels, Bars, Flats, TMT Bars, Rounds	28,700	1,39,300	1,68,000

3.1 Land Area

The plot area of the project is 9.183 acres/37165.56 sqm. The industry has CLU of 5.258 acres land which is used for industrial purposes. The rest land area of 3.925 acre, having no CLU, will only be developed as green belt.

3.2 Raw Material Requirement

The raw materials and finished goods will be transported through trucks. There is well developed road structure on NH-44, HF Super Road as well as within premises also. No additional road infrastructure will be required for transportation. The number of trucks per day for raw material and finished product transportation will be approx. 25 trucks. The raw material source will be standard manufacturer or supplier. The raw material details are given as under:

Raw materials	Existing (TPA)	Proposed (TPA)	Total (TPA)
MS Scrap, Ferro Alloys	31, 000	57,500	1,79,200

3.3 Water Requirement

Water consumption in the unit shall be for twin purpose namely domestic and make up water for cooling tower (CT). Water requirement will be met through existing tube well. The detail of water requirement and water balance is given below:-

For Summer Season

Description (KLD)	Existing (KLD)	Additional (KLD)	Total (KLD)
Domestic	4.0	2.0	6.0
Cooling	150	142	292
Total	154	146	300

For Rainy and winter Season

Description (KLD)	Existing (KLD)	Additional (KLD)	Total (KLD)
Domestic	4.0	2.0	6.0
Cooling	130	110	240
Total	134	112	246

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: -

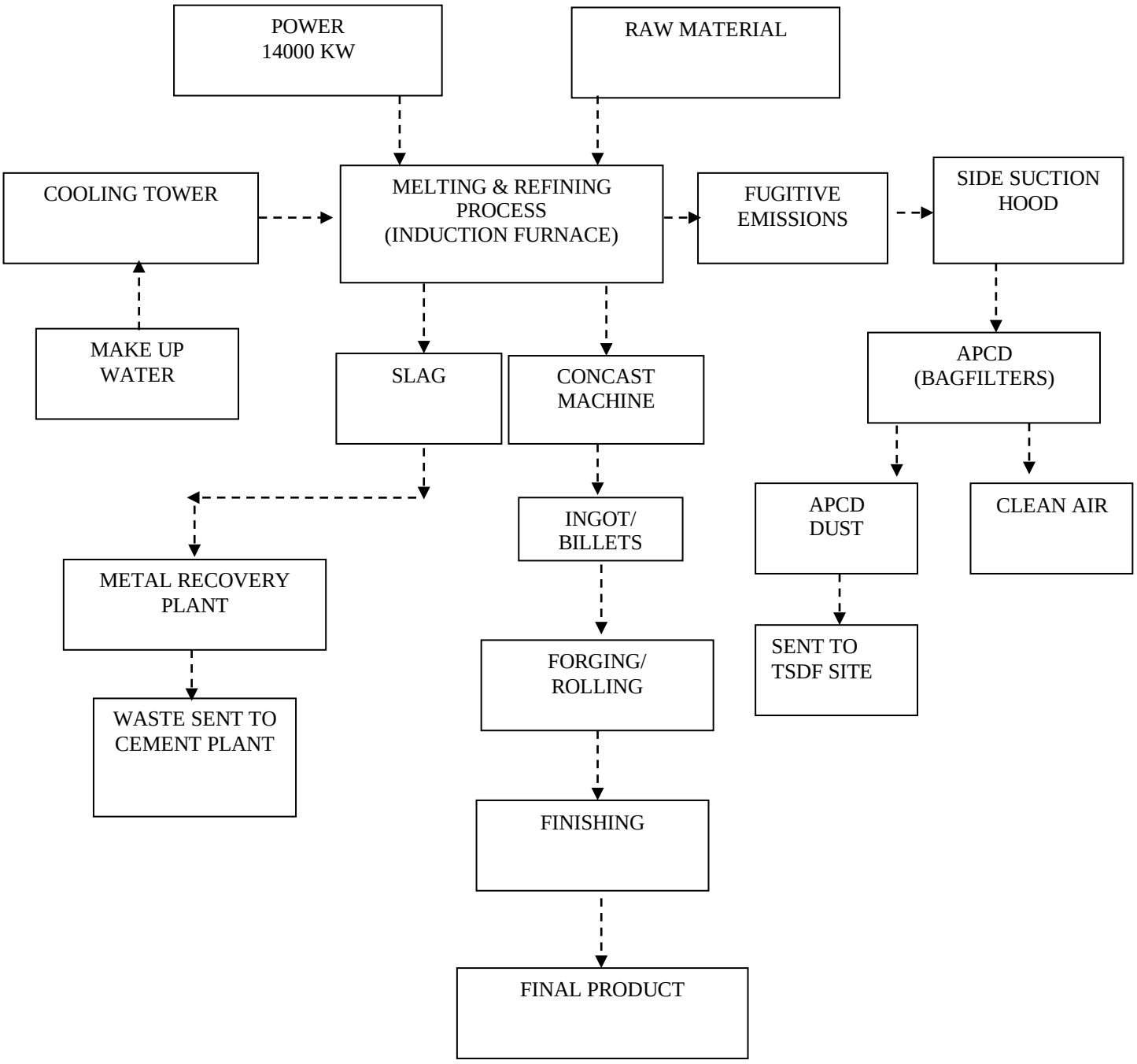
DESCRIPTION	EXISTING	PROPOSED	TOTAL
Power (KW)	4000	10000	14000
Source	Punjab State Power Corporation Limited, Punjab		
Power Backup	One DG set of capacity 320KVA		

3.5 Manpower Requirement

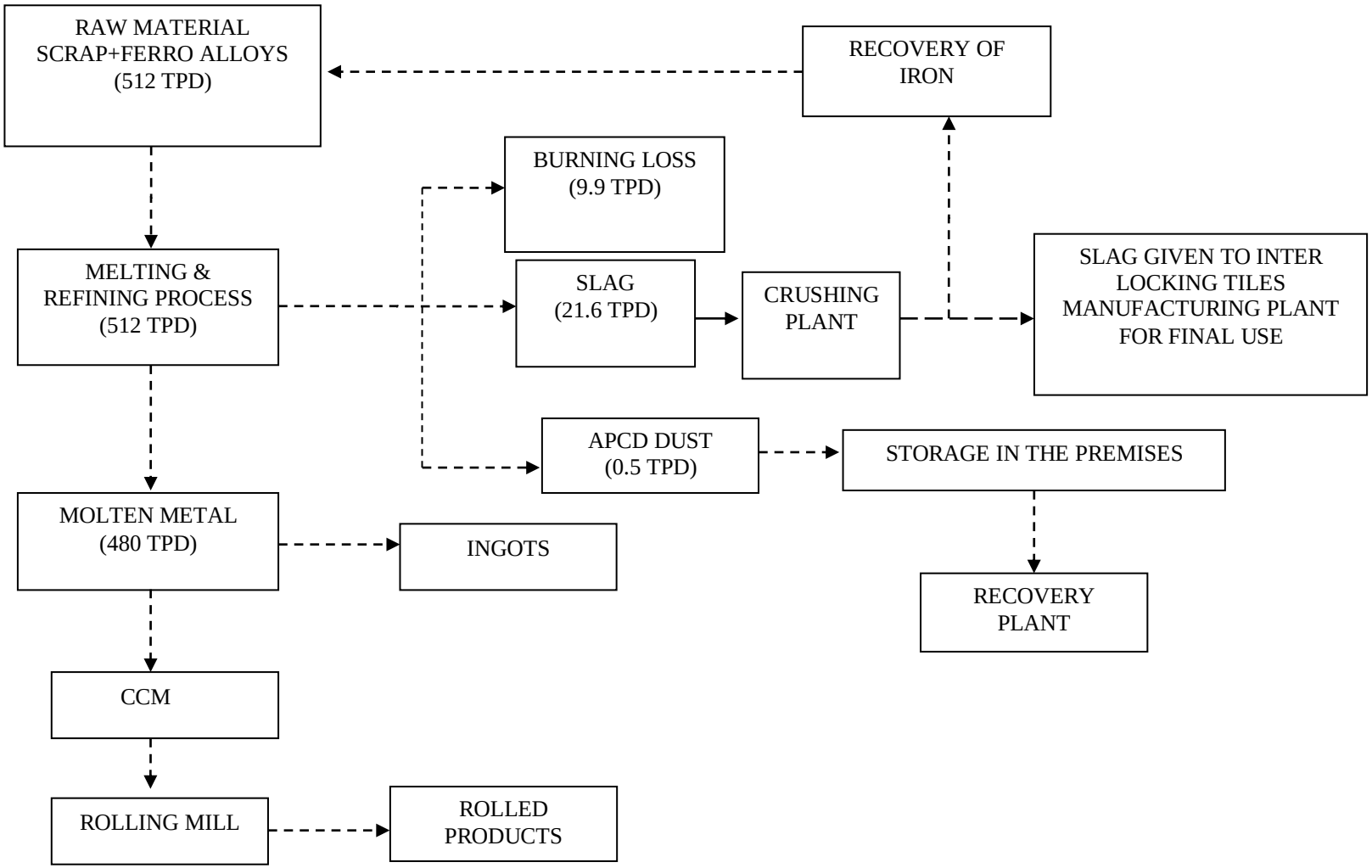
Already, 89 persons are working in the unit. The proposed project will bring employment for additional 40 persons. Thus, total employment will be 129 after proposed expansion. Also, with proposed expansion coming into being, there will be significant improvement in socio-economic conditions of nearby people.

4.0 Process Description

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 after suction through side suction hood will be passed through spark arrestor, air cooling and finally bag filters before its discharge to atmosphere. DG set will be fitted with a canopy and adequate stack to take care of noise and particulate & gaseous emission.

- Total quantity of slag generated after carrying out expansion will be 21.6 TPD which will be sent to M/s Malwa Bricks under proper agreement
- APCD of quantity 0.5 TPD dust will be sent to M/s R.P. Multimetals Pvt Ltd. Unit-II for final disposal for recovery of Zn metal.
- Used oil from DG sets will be used as lubricant in the industry

6.0 Cost Details

- The total cost of the project after proposed project coming into being will be ₹ 40.34 Crores.
- The proposed project will be implemented after one year after the granting of Environment Clearance.

7.0 Site Details

The proposed project site is located at Village-Majri Mishri, backside Focal point, Mandi Gobindgarh, Tehsil- Amloh, District-Fatehgarh Sahib, Punjab. is having its global coordinates as Latitude 30°38'30.48"N, 30°38'32.67"N, 30°38'29.78"N, 30°38'24.16"N, 30°38'25.21"N, 30°38'28.49"N, & Longitude 76°17'28.07"E, 76°17'33.85"E, 76°17'37.12"E, 76°17'29.78"E, 76°17'26.47"E, 76°17'25.61"E. Mandigobindgarh is the nearest city (about 2.14 Km, N) and also the nearest railway station (about 3.25 km, N). Nearest Airport is Chandigarh which is at 46 km from site. No National Parks/ Wildlife Sanctuaries/ Biosphere Reserves/ Reserved Forests exist within 10 km radius of project site.

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 January-March, 2023.

8.1 Ambient Air Quality

The $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO levels were monitored at eight locations in the study area for three months (January-March 2023). The P98 levels of criteria pollutants are as follows: $PM_{2.5}$ is 40.6 μg/m^3, PM_{10} is 73.4 μg /m^3, SO_2 is 11.7 μg/m^3, NO_2 is 14.8 μg/m^3 and CO is 0.71 mg/ m^3. 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, 80μg/m^3 and 4.0mg/m^3 for $PM_{2.5}$, 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 physical or bacterial contamination was found in the water quality. But bacterial contamination is found in surface water. Since, no waste water will be discharged on land, water quality is not likely to be impacted.

8.3 Noise Environment

Ambient noise levels were monitored at 8 locations in the study area. Noise levels at the Project site was found to be 70.1 dB (A) in day time and 56.4 dB (A) at night. The highest levels were observed at Project Site. The baseline noise levels are well within the National Standards. Proposed expansion 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 as no waste will be discharged on land.

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.

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.**

Table: Possible Risk

S.No.	Plant Area	Possible Deviation from normal	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	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 EMP Budget

S. No	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh
1	Pollution Control during construction stage	5.0	2.0
2	Air Pollution Control (Installation of APCD)	80.0	10.0
3	Water Pollution Control/ STP up-gradation	15.0	5.0
4	Noise Pollution Control	5.0	1.0
5	Landscaping/ Green Belt Development	16.2	19.2 (for Three years)
6	Solid Waste Management	5.0	5.0
7	Environment Monitoring and Management	2.0	0.50
8	Occupational Health, Safety and Risk Management	10.0	2.0
9	RWH	10.0	0.50
10	Miscellaneous	4.0	--
	TOTAL	**152.2**	**45.2**

12.0 CER Activities (Corporate Environmental Responsibility)

In lieu of Corporate Environmental Responsibility, the OM dated 30th Sept., 2020 issued by MOEF&CC superseding OM dated 1st May, 2018 shall be followed and commitments made by project proponent to address the concerns raised during public hearing will be part of EMP.

13.0 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 $PM_{2.5}$, PM_{10}, NO_x & SO_2, 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.